THE MAGAZINE OF

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JANUARY 40¢

Pacifist

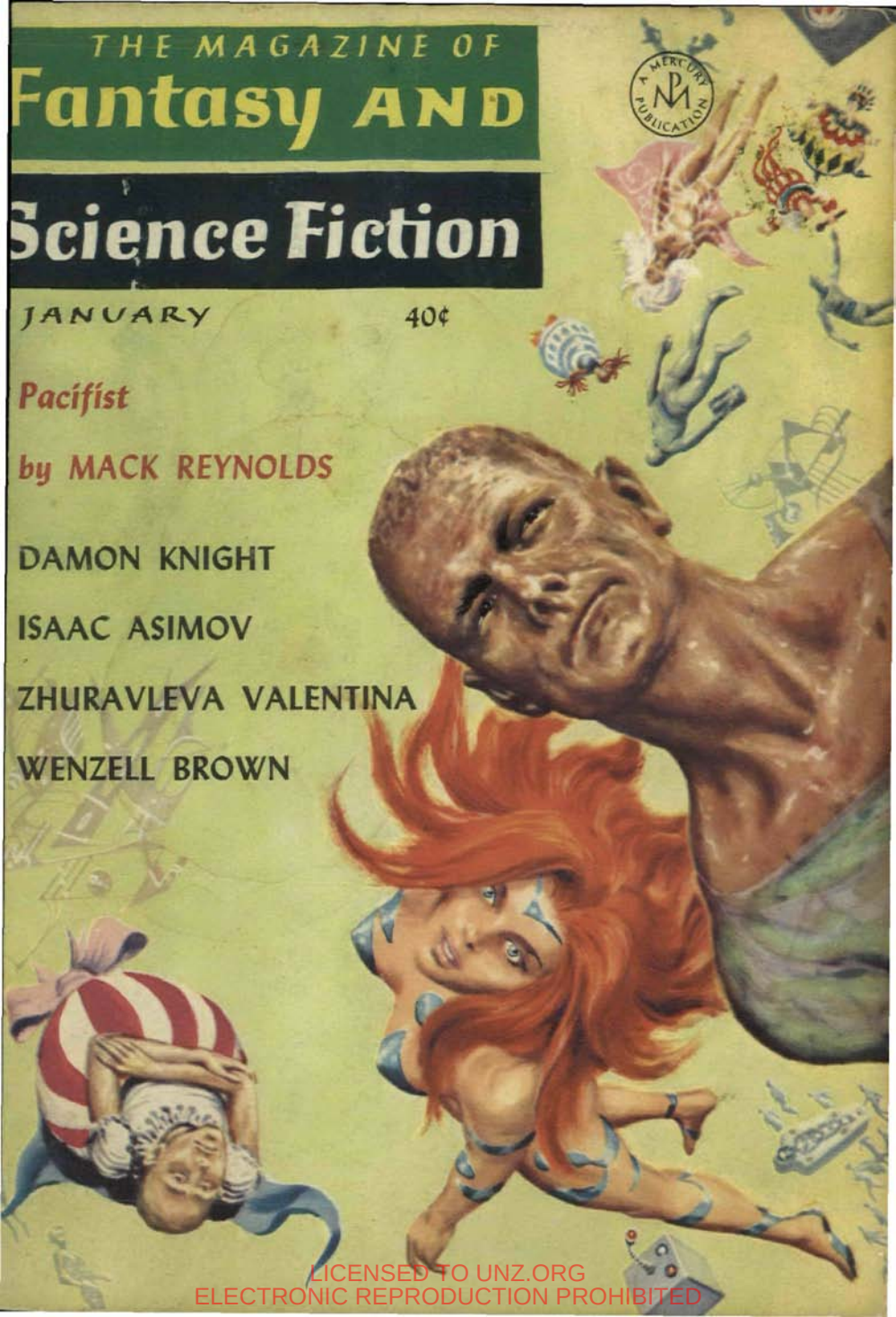
by MACK REYNOLDS

DAMON KNIGHT

ISAAC ASIMOV

ZHURAVLEVA VALENTINA

WENZELL BROWN



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Fantasy and Science Fiction

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Joseph W. Ferman, PUBLISHER *Avram Davidson,* EXECUTIVE EDITOR

Isaac Asimov, SCIENCE EDITOR *Edward L. Ferman,* MANAGING EDITOR

Ted White, ASSISTANT EDITOR

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It is one of life's little ironies that pacifists flourish only in countries where there are men unpacific enough to be willing to fight for the right of the fellows not *to fight. Conscientious objectors were not tolerated in Nazi Germany, they are not tolerated in Soviet Russia nor in Soviet China (reports from Soviet Cuba seem to be silent on the point); pacifists there most probably are in these countries—they suffer, die, are silent, without having advanced the causes of peace by an inch. The martyr's crown is easily gained; the martyr's* cause . . . *is something else. Still, who shall say that a more noble purpose than ending war exists? And who can say how really to attain it? Revolutions, civil wars, underground movements—all uniformly dedicated, of course, to the triumph of ethics, have often employed and with clear conscience the most unethical tactics: what we might term* The Brazen Mean: *that mean which is justified by the end. World traveller and political student Mack Reynolds grasps another nettle here, and carries certain premises to their logical confusion. Suppose . . . just suppose . . .*

PACIFIST

by Mack Reynolds

IT WAS ANOTHER TIME, ANOTHER space, another continuum.

Warren Casey called, "Boy! You're Fredric McGivern, aren't you?"

The lad stopped and frowned in puzzlement. "Well, yes, sir." He was a youngster of about nine. A bit plump, particularly about the face.

Warren Casey said, "Come along, son. I've been sent to pick you up."

The boy saw a man in his mid-thirties, a certain dynamic quality behind the facial weariness. He wore a uniform with which young McGivern was not familiar, but which looked reassuring.

"Me, sir?" the boy said. "You've been sent to pick me up?"

"That's right, son. Get into the car and I'll tell you all about it."

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"But my father said . . ."

"Your father *sent* me, son. Senator McGivern. Now, come along or he'll be angry."

"Are you sure?" Still frowning, Fredric McGivern climbed into the helio-car. In seconds it had bounded into the second level and then the first, to speed off to the southwest.

It was more than an hour before the kidnapping was discovered.

Warren Casey swooped in, dropped two levels precipitately and brought the helio-car down in so dainty a landing that there was no perceptible touch of air cushion to garage top.

He fingered a switch with his left hand, even as he brought his right out of his jacket holding a badly burned out pipe. While the garage's elevator sunk into the recess below, he was loading the aged briar from an equally ancient pouch.

In the garage, Mary Baca was waiting nervously. She said, even though she must have been able to see the boy, "You got him?"

"That's right," Casey said. "I've given him a shot. He'll be out for another half hour or so. Take over, will you Mary?"

The nurse looked down at the crumpled figure bitterly. "It couldn't have been his father. We have to pick on a child."

Casey flicked a quick glance at her as he lit the pipe. "It's all been worked out, Mary."

"Of course," she said. Her voice tightened. "I'll have him in the cell behind the rumpus room."

Down below he went to the room that had been assigned him and stripped from the uniform. He went into the bath and showered thoroughly, washing out a full third of the hair that had been on his head and half the color in that which remained. He emerged from the bath, little refreshed and some five years older.

He dressed in an inexpensive suit not overly well pressed and showing wear. His shirt was not clean, as though this was the second day he had worn it, and there was a food spot on his tie.

At the small desk he picked up an automatic pencil and clipped it into the suit's breast pocket and stuffed a bulky notebook into a side pocket. He stared down at the gun for a moment, then grimaced and left it. He departed the house by the front door and made his way to the metro escalator.

The nearest metro exit was about a quarter of a mile from Senator McGivern's residence and Warren Casey walked the distance. By the time he arrived he had achieved a cynical quality in his expression of boredom. He didn't bother to look up into the face of whoever opened the door.

"Jakes," he said. "H.N.S. McGivern expects me."

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"H.N.S.?" the butler said stiffly.

"Hemisphere News. Hemisphere News Service," Warren Casey yawned. "Fer crissakes, we gonna stand here all day? I gotta deadline."

"Well, step in here, sir. I'll check." The other turned and led the way.

Casey stuck a finger into his back. His voice went flat. "Don't get excited and maybe you won't get hurt. Just take me to the Senator, see? Don't do nothing at all might make me want to pull this trigger."

The butler's face was gray. "The Senator is in his study. I warn you . . . sir . . . the police shall know of this immediately."

"Sure, sure, Mac. Now just let's go to the study."

"It's right in there . . . sir."

"Fine," Casey said. "And what's that, under the stairway?"

"Why, that's a broom closet. The downstairs maid's broom . . ."

Casey brought his flat hand around in a quick clip. The servant folded up with a lung-emptying sigh and Casey caught him before he hit the floor, dragged him to the broom closet, pushed and wedged him inside. He darted a hand to a vest pocket and brought forth a syrette. "That'll keep you out for a couple of hours," he muttered, closing the closet door.

He went over to the heavy door which the butler had indicated as Senator McGivern's study, and knocked on it. In a moment it opened and a husky in his mid-twenties, nattily attired and of obvious self-importance, frowned at him.

"Yes?" he said.

"Steve Jakes of Hemisphere News," Warren Casey said. "The editor sent me over . . ." As he talked, he sidestepped the other and emerged into the room beyond.

Behind the desk was an older edition of nine-year-old Fredric McGivern. A Fredric McGivern at the age of perhaps fifty, with what had been boyish plump cheeks now gone to heavy jowls.

"What's this?" he growled.

Casey stepped further into the room. "Jakes, Senator. My editor . . ."

Senator Phil McGivern's abilities included cunning and a high survival factor. He lumbered to his feet. "Walters! Take him!" he snapped. "He's a fake!" He bent over to snatch at a desk drawer.

Walters was moving, but far too slowly.

Warren Casey met him half way, reached forward with both hands and grasped the fabric of the foppish drape suit the secretary wore. Casey stuck out a hip, twisted quickly, turning his back halfway to the other. He came over and around, throwing the

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younger man heavily to his back.

Casey didn't bother to look down. He stuck a hand into a side pocket, pointed a finger at McGivern through the cloth.

The other's normally ruddy face drained of color. He fell back into his chair.

Warren Casey walked around the desk and brought the gun the other had been fumbling for from the drawer. He allowed himself a deprecating snort before dropping it carelessly into a pocket.

Senator Phil McGivern was no coward. He glowered at Warren Casey. "You've broken into my home—criminal," he said. "You've assaulted my secretary and threatened me with a deadly weapon. You will be fortunate to be awarded no more than twenty years."

Casey sank into an easy chair so situated that he could watch both McGivern and his now unconscious assistant at the same time. He said flatly, "I represent the Pacifists, Senator. Approximately an hour ago your son was kidnapped. You're one of our top priority persons. You probably realize the implications."

"Fredric! You'd kill a nine year old boy!"

Casey's voice was flat. "I have killed many nine year old boys, Senator."

"Are you a monster!"

"I was a bomber pilot, Senator."

The other, who had half risen again, slumped back into his chair. "But that's different."

"I do not find it so."

In his hard career, Phil McGivern had faced many emergencies. He drew himself up now. "What do you want—criminal? I warn you, I am not a merciful man. You'll pay for this, Mr. . ."

"Keep calling me Jakes, if you wish," Casey said mildly. "I'm not important. Just one member of a widespread organization."

"What do you want?" the Senator snapped.

"How much do you know about the Pacifists, McGivern?"

"I know it to be a band of vicious criminals!"

Casey nodded, agreeably. "It's according to whose laws you go by. We have rejected yours."

"What do you want?" the Senator repeated.

"Of necessity," Casey continued, evenly, "our organization is a secret one; however, it contains some of the world's best brains, in almost every field of endeavor, even including elements in the governments of both Hemispheres."

Phil McGivern snorted his contempt.

Casey went on, an eye taking in the fact that Walters, laid out on the floor, had stirred and groaned softly. "Among our number are some capable of charting world developments. By extrapo-

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lation, they have concluded that if your policies are continued nuclear war will break out within three years."

The other flushed in anger, finding trouble in controlling his voice. "Spies! Subversives! Make no mistake about it, Jakes, as you call yourself, we realize you're nothing more than catspaws for the Polarians."

The self-named Pacifist chuckled sourly. "You should know better, Senator. Our organization is as active on the Northern Hemisphere as it is on this one." Suddenly he came quickly to his feet and bent over Walters who had begun to stir. Casey's hand flicked out and clipped the other across the jawbone. The secretary collapsed again, without sound.

Warren Casey returned to his chair. "The point is that our experts are of the opinion that you'll have to drop out of politics, Senator McGivern. I suggest a resignation for reasons of health within the next week."

There was quick rage, then steaming silence while thought processes went on. "And Fredric?" McGivern growled finally.

Casey shrugged. "He will be freed as soon as you comply."

The other's eyes narrowed. "How do you know I'll stick to my promise? A contract made under duress has no validity."

Casey said impatiently, "Having Fredric in our hands now is a minor matter, an immediate bargaining point to emphasize our position. Senator, we have investigated you thoroughly. You have a wife of whom you are moderately fond, and a mistress whom you love. You have three adult children by your first wife, and four grandchildren. You have two children by your second wife, Fredric and Janie. You have a living uncle and two aunts, and five first cousins. Being a politician, you have many surface friends, which we shall largely ignore, but you also know some thirty persons who mean much to you."

McGivern was beginning to adjust to this abnormal conversation. He growled, "What's all this got to do with it?"

Warren Casey looked into the other's eyes. "We shall kill them, one by one. Shot at a distance with a rifle with telescopic sights. Blown up by bomb. Machine gunned, possibly as they walk down the front steps of their homes."

"You're insane! The police. The . . ."

Casey went on, ignoring the interruption. "We are in no hurry. Some of your children, your relatives, your friends, your mistress, may take to hiding in their panic. But there is no hiding—nowhere on all this world. Our organization is in no hurry, and we are rich in resources. Perhaps in the

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doing some of us will be captured or dispatched. It's besides the point. We are dedicated. That's all we'll be living for, killing the people whom you love. When they are all gone, we will kill *you*. Believe me, by that time it will be as though we're motivated by compassion. All your friends, your loved ones, your near-of-kin, will be gone.

"We will kill, kill, kill—but in all it will be less than a hundred people. It will not be thousands and millions of people. It will only be *your* closest friends, *your* relatives, *your* children and finally *you*. At the end, Senator, you will have some idea of the meaning of war."

By the end of this, although it was delivered in an almost emotionless voice, Phil McGivern was pushed back in his swivel chair as though from physical attack. He repeated, hoarsely, "You're insane."

Warren Casey shook his head. "No, it is really you, you and those like you, who are insane. Wrapped up in your positions of power, in your greed for wealth in the preservation of your priveleges, you would bring us into a conflagration which would destroy us all. You are the ones who are insane."

The Pacifist agent leaned forward. "Throughout history, Senator, there have been pacifists. But never such pacifists as we. Always, in the past, they have been laughed at or sneered at in times of peace, and imprisoned or worse in time of war."

"Cowards," Senator McGivern muttered in distaste.

Casey shook his head and chuckled. "Never, Senator. Don't look for cowards among pacifists and conscientious objectors. It takes courage to buck the current of public opinion. A coward is often better off in the ranks and usually safer. In modern war, at least until the advent of nuclear conflict, only a fraction of the soldiers ever see combat. The rest are in logistics, in a thousand branches of behind the lines work. One man in twenty ever glimpses the enemy."

McGivern snapped, "I'm not interested in your philosophy, criminal. Get to the point. I want my son back."

"This *is* the point, Senator. Today we Pacifists have become realists. We are willing to fight, to kill and to die, in order to prevent war. We are not interested in the survival of individuals, we are of the opinion that another war will destroy the race, and to preserve humanity we will do literally anything."

McGivern thumped a heavy fist on his chair arm. "You *fool!* The Northern Hemisphere seeks domination of the whole world. We must defend ourselves!"

The Pacifist was shaking his

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head again. "We don't care who is right or wrong—if either side is. It finally gets to the point where that is meaningless. Our colleagues are working among the Polarians, just as we are working here in the Southern Hemisphere. Persons such as yourself, on the other side, are courting death just as you are by taking steps that will lead to war."

Warren Casey stood. "You have one week in which to resign your office, Senator. If you fail to, you will never see your son Fredric again. And then, one by one, you will hear of the deaths of your relatives and friends."

The Pacifist agent came quickly around the desk and the older man, in an effort to escape, pushed his chair backward and tried to come to his feet. He was too clumsy in his bulk. Warren Casey loomed over him, slipped a syrette into the other's neck.

Senator Phil McGivern, swearing, fell to his knees and then tried to come erect. He never made it. His eyes first stared, then glazed, and he dropped back to the floor, unconscious.

Warren Casey bent momentarily over Walters, the secretary, but decided that he was safe for a time. He shot a quick look about the room. What had he touched? Had he left anything?

He strode quickly from the room, retracing the path by which the butler had brought him fifteen minutes earlier, and let himself out the front door.

His cab pulled up before the aged, but well-preserved, mansion, and he dropped coins into the vehicle's toll box and then watched it slip away into the traffic.

He walked to the door and let himself be identified at the screen. When the door opened he strolled through.

A young woman, her face so very earnest in manner that her natural prettiness was all but destroyed, sat at a desk.

Rising, she led the way and held the door open for him and they both entered the conference room. There were three men there at the table, all of them masked.

Casey was at ease in their presence. He pulled a chair up across from them and sat down. The girl took her place at the table and prepared to take notes.

The chairman, who was flanked by the other two, said, "How did the McGivern affair go, Casey?"

"As planned. The boy proved no difficulty. He is now at the hideaway in charge of Operative Mary Baca."

"And the Senator?"

"As expected. I gave him full warning."

"The secretary, Walters. He was eliminated?"

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"Well, no. I left him unconscious."

There was a silence.

One of the other masked men said, "The plan was to eliminate the secretary to give emphasis to the Senator as to our determination."

Casey's voice remained even. "As it worked out, it seemed expedient to follow through as I did."

The chairman said, "Very well. The field operative works with considerable range of discretion. No one can foresee what will develop once an operation is underway."

Warren Casey said nothing.

The second board member sighed. "But we had hoped that the sight of a brutal killing, right before him, might have shocked Phil McGivern into submission immediately. As it is now, if our estimates of his character are correct, the best we can hope for is capitulation after several of his intimates have been dispatched."

Casey said wearily, "He will never capitulate, no matter what we do. He's one of the bad ones."

The third board member, who had not spoken to this point, said thoughtfully, "Perhaps his immediate assassination would be best."

The chairman shook his head. "No. We've thrashed this all out. We want to use McGivern as an example. In the future, when dealing with similar cases, our people will be able to threaten others with his fate. We'll see it through, as planned." He looked at Casey. "We have another assignment for you."

Warren Casey leaned back in his chair, his face expressionless, aside from the perpetual weariness. "All right," he said.

The second board member took up an assignment sheet. "It's a Priority One. Some twenty operatives are involved in all." He cleared his voice. "You've had interceptor experience during your military career?"

Casey said, "A year, during the last war. I was shot down twice and they figured my timing was going, so they switched me to medium bombers."

"Our information is that you have flown the Y-36G."

"That's right." Casey wondered what they were getting to.

The board officer said, "In two weeks the first class of the Space Academy graduates. Until now, warfare has been restricted to land, sea and air. With this graduation we will have the military erupting into a new medium."

"I've read about it," Casey said.

"The graduation will be spectacular. The class is small, only seventy-five cadets, but already the school is expanding. All the other services will be represented at the ceremony."

Warren Casey wished the other would get to the point.

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"We want to make this a very dramatic protest against military preparedness," the other went on. "Something that will shock the whole nation, and certainly throw fear into everyone connected with arms."

The chairman took over. "The air force will put on a show. A flight of twenty Y-36Gs will buzz the stand where the graduating cadets are seated, waiting their commissions."

Realization was beginning to build within Casey.

"You'll be flying one of those Y-36Gs," the chairman pursued. His next sentence came slowly. "And the guns of your craft will be the only ones in the flight that are loaded."

Warren Casey said, without emotion, "I'm expendable, I suppose?"

The chairman gestured in negation. "No. We have plans for your escape. You make only the one pass, and you strafe the cadets as you do so. You then proceed due north, at full speed . . ."

Casey interrupted quickly. "You'd better not tell me any more about it. I don't think I can take this assignment."

The chairman was obviously taken aback. "Why, Warren? You're one of our senior men and an experienced pilot."

Casey shook his head, unhappily. "Personal reasons. No operative is forced to take an assignment he doesn't want. I'd rather skip this, so you'd best not tell me any more about it. That way it's impossible for me to crack under pressure and betray someone."

"Very well," the chairman said, his voice brisk. "Do you wish a vacation, a rest from further assignment at this time?"

"No. Just give me something else."

One of the other board members took up another piece of paper. "The matter of Professor Leonard LaVaux," he said.

Professor Leonard LaVaux lived in a small bungalow in a section of town which had never pretended to more than middle class status. The lawn could have used a bit more care, and the roses more cutting back, but the place had an air of being comfortably lived in.

Warren Casey was in one of his favored disguises, that of a newspaperman. This time he bore a press camera, held by its strap. There was a gadget bag over one shoulder. He knocked, leaned on the door jam, assumed a bored expression and waited.

Professor LaVaux seemed a classical example of stereotyping. Any producer would have hired him for a scholar's part on sight. He blinked at the pseudo-journalist through bifocals.

Casey said, "The *Star*, Profes-

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sor. Editor sent me to get a few shots."

The professor was puzzled. "Photographs? But I don't know of any reason why I should be newsworthy at this time."

Casey said, "You know how it is. Your name gets in the news sometimes. We like to have something good right on hand to drop in. Editor wants a couple nice shots in your study. You know, like reading a book or something."

"I see," the Professor said. "Well, well, of course. Reading a book, eh? What sort of book? Come in, young man."

"Any book will do," Casey said with journalistic cynicism. "It can be Little Red Riding Hood, far as I'm concerned."

"Yes, of course," the Professor said. "Silly of me. The readers would hardly be able to see the title."

The professor's study was a man's room. Books upon books, but also a king-size pipe rack, a small portable bar, two or three really comfortable chairs and a couch suitable for sprawling upon without removal of shoes.

LaVaux took one of the chairs, waved the supposed photographer to another. "Now," he said. "What is procedure?"

Casey looked about the room, considering. "You live here all alone?" he said, as though making conversation while planning his photography.

"A housekeeper," the Professor said.

"Maybe we could work her in on a shot or two."

"I'm afraid she's out now."

Casey took the chair the other had offered. His voice changed tone. "Then we can come right to business," he said.

The professor's eyes flicked behind the bifocals. "I beg your pardon?"

Warren Casey said, "You've heard of the Pacifists, Professor?"

"Why . . . why, of course. An underground, illegal organization." The professor added, "Quite often accused of assassination and other heinous crime, although I've been inclined to think such reports exaggerated, of course."

"Well, don't," Casey said curtly.

"I beg your pardon?"

"I'm a Pacifist operative, Professor LaVaux and I've been assigned to warn you to discontinue your present research or your life will be forfeit."

The other gaped, unable to adapt his mind to the shift in identity.

Warren Casey said, "You're evidently not knowledgeable about our organization, Professor. I'll brief you. We exist for the purpose of preventing further armed conflict upon this planet. To secure that end, we are willing to take any measures. We are ruthless, Professor. My interest is

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not to convert you, but solely to warn you that unless your present research is ended you are a dead man."

The professor protested. "See here, I'm a scientist, not a politician. My work is in pure research. What engineers, the military and eventually the government do with applications of my discoveries is not my concern."

"That's right," Casey nodded agreeably. "Up to this point, you, like many of your colleagues, have not concerned yourself with the eventual result of your research. Beginning now, you do, Professor, or we will kill you. You have one week to decide."

"The government will protect me!"

Casey shook his head. "No, Professor. Only for a time, even though they devote the efforts of a hundred security police. Throughout history, a really devoted group, given sufficient numbers and resources, could always successfully assassinate any person, in time."

"That was the past," the professor said, unconvinced. "Today, they can protect me."

Casey was still shaking his head. "Let me show you just one tool of our trade." He took up his camera and removed the back. "See this little device? It's a small, spring powered gun which projects a tiny, tiny hypodermic needle through the supposed lens of this dummy camera. So tiny is the dart that when it imbeds itself in your neck, hand, or belly, you feel no more than a mosquito bite."

The professor was motivated more by curiosity than fear. He bent forward to look at the device. "Amazing," he said. "And you have successfully used it?"

"Other operatives of our organization have. There are few, politicians in particular, who can escape the news photographer. This camera is but one of our items of equipment, and with it an assassin has little trouble getting near his victim."

The professor shook his head in all but admiration. "Amazing," he repeated. "I shall never feel safe with a photographer again."

Warren Casey said, "You have no need for fear, Professor, if you abandon your current research."

Leonard LaVaux said, "And I have a week to decide? Very well, in a week's time I shall issue notice to the press either that I have given up my research, or that I have been threatened by the Pacifists and demand protection."

Casey began to stand, but the professor raised a hand. "Wait a moment," he said. "I'd like to ask you a few questions."

The pacifist looked at the other warily.

LaVaux said, "You're the first member of your organization to whom I've ever spoken."

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"I doubt it," Casey said.

"Ah? Very secret, eh? Members are everywhere, but undetected. Then how do you recruit new membership? Being as illegal as you are, of course, the initial approach must be delicate indeed."

"That's right," Casey nodded. "We take every precaution. A prospect isn't approached until it is obvious he is actually seeking an answer to the problem of outlawing war. Many persons, Professor, come to our point of view on their own. They begin discussing the subject, seeking answers, seeking fellows who think along the same line."

The professor was fascinated. "But even then, of course, mistakes must be made and some of your membership unmasked to the authorities."

"A hazard always faced by an underground."

"And then," the professor said triumphantly, "your whole organization crumbles. One betrays the next, under police coercion."

Casey laughed sourly. "No. That's not it. We profit by those who have gone before. The history of underground organizations is a long one, Professor. Each unit of five pacifists know only those belonging to their own unit, and one coordinator. The coordinators, in turn, know only four other coordinators with whom they work, plus a section leader, who knows only four other section leaders with whom *he* works, and so forth right to the top officials of the organization."

"I see," the professor murmured. "So an ordinary member can at most betray four others, of course. But when the police capture a coordinator?"

"Then twenty-five persons are endangered," Casey admitted. "And occasionally it happens. But we have tens of thousands of members, Professor, and new ones coming in daily. We grow slightly faster than they seem able to catch us."

The professor switched subjects. "Well, no one would accuse you of being a patriot, certainly."

Casey contradicted him. "It's a different type of patriotism. I don't identify myself with this Hemisphere."

The other's eyebrows went up. "I see. Then you are a Polarian?"

Casey shook his head. "Nor do I identify myself with them. Our patriotism is to the human race, Professor. This is no longer a matter of nation, religion or hemisphere. It is a matter of species survival. We are not interested in politics, socio-economic systems or ideology, other than when they begin to lead to armed conflict between nations."

The professor considered him for a long silent period. Finally, he said, "Do you really think it will work?"

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"How's that?" Warren Casey said. For some reason, this earnest, fascinated, prying scientist appealed to him. He felt relaxed during the conversation, a relaxation, he realized, that had been denied him for long months now.

"Trying to keep the world at peace by threatening, frightening, even assassinating those whom you decide are trending toward war. Do you think it will work?"

All the wariness was back, suddenly. The months-long tiredness, and doubt, and the growing nausea brought on by violence, violence, violence. If only he could never hear the word *kill* again.

He said, "When I first joined the Pacifists, I was positive they had the only answer. Now I've taken my stand, but perhaps I am not so sure. Why do you think it won't?"

The scientist pointed a finger at him. "You make a basic mistake in thinking this a matter of individuals. To use an example, in effect what you are saying is, *kill the dictator and democracy will return to the country*. Nonsense. You put the cart before the horse. That dictator didn't get into power because he was so fabulously capable that he was able to thwart a whole nation's desire for liberty. He, himself, is the product of a situation. Change the situation and he will disappear, but simply assassinate him and all you'll get is another dictator."

The other's words bothered Warren Casey. Not because they were new to him, subconsciously they'd been with him almost from the beginning. He looked at the scientist, waiting for him to go on.

LaVaux touched himself on the chest with his right forefinger. "Take me. I am doing work in a field that can be adapted to military use, although that is not my interest. Actually, I am contemptuous of the military. But you threaten my life if I continue. Very well. Suppose you coerce me and I drop my research. Do you think that will stop investigation by a hundred, a thousand other capable men? Of course not. My branch of science is on the verge of various breakthroughs. If I don't make them, someone else will. You don't stop an avalanche by arresting the roll of one rock."

A tic began in the cheek of Casey's usually emotionless face. "So you think . . ." he prompted.

LaVaux' eyes brightened behind the bi-focals. He was a man of enthusiastic opinions. He said, "Individuals in the modern world do not start wars. It's more basic than that. If the world is going to achieve the ending of warfare, it's going to have to find the causes of international con-

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flict and eliminate them." He chuckled. "Which, of course, opens up a whole new line of investigation."

Warren Casey stood up. He said, "Meanwhile, Professor, I represent an organization that, while possibly wrong, doesn't agree with you. The ultimatum has been served. You have one week."

Professor Lavaux saw him to the door.

"I'd like to discuss the subject further, some day," he said. "But, of course, I suppose I won't be seeing you again."

"That's right," Casey said. He twisted his mouth wryly. "If we have to deal with you further, Professor, and I hope we don't, somebody else will handle it." He looked at the other and considered momentarily rendering the stereotyped-looking scientist unconscious before he left. But he shook his head. *Lord,* he was tired of violence.

As he walked down the garden path to the gate, Professor LaVaux called, "By the way, your disguise. You'll find there are several excellent oral drugs which will darken your complexion even more effectively than your present method."

Almost, Warren Casey had to laugh.

He was between assignments, which was a relief. He knew he was physically as well as mentally worn. He was going to have to take the board up on that offer of a prolonged vacation.

Taking the usual precautions in the way of avoiding possible pursuit, he returned to his own apartment. It had been a week, what with one assignment and another, and it was a pleasure to look forward to at least a matter of a few hours of complete relaxation.

He shed his clothing, showered, and then dressed in comfortably old clothing. He went to the tiny kitchen and prepared a drink, finding no ice since he had unplugged the refrigerator before leaving.

Casey dropped into his reading chair and took up the paperback he'd been reading when summoned a week ago to duty. He had forgotten the subject. Ah, yes, a swashbuckling historical novel. He snorted inwardly. It was all so simple. All the hero had to do was kill the evil duke in a duel and everything would resolve itself.

He caught himself up, Professor LaVaux' conversation coming back to him. Essentially, that was what he—what the Pacifists were trying to do. By filling the equivalent of the evil duke—individuals, in other words—they were hoping to solve the problems of the world. Nonsense, on the face of it.

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He put down the novel and stared unseeing at the wall opposite. He had been an operative with the Pacifists for more than three years now. He was, he realized, probably their senior hatchetman. An agent could hardly expect to survive so long. It was against averages.

It was then that the screen of his telephone lit up.

Senator Phil McGivern's face glowered at him.

Warren Casey started, stared.

McGivern said, coldly, deliberately, "The building is surrounded, Casey. Surrender yourself. There are more than fifty security police barring any chance of escape."

The Pacifists's mind snapped to attention. Was there anything he had to do? Was there anything in the apartment that might possibly betray the organization or any individual member of it? He wanted a few moments to think.

He attempted to keep his voice even. "What do you want, McGivern?"

"My son!" The politician was glaring his triumph.

"I'm afraid Fredric is out of my hands," Casey said. Was the senator lying about the number of police? Was there any possibility of escape?

"Then whose hands is he in? You have him, Warren Casey, but we have you."

"He's not here," Casey said. There might still be a service he could perform. Some way of warning the organization of McGivern's method of tracking him down. "How did you find me? How do you know my name?"

McGivern snorted. "You're a fool as well as a criminal. You sat in my office and spoke in the accent of your native city. I pinpointed that, immediately. You told me you'd been a bomber pilot and obviously had seen action, which meant you'd been in the last war. Then as a pseudonym you used the name Jakes. Did you know that persons taking pseudonyms almost always base them on some actuality? We checked in your home city, and, sure enough, there was actually a newspaperman named Jakes. We questioned him. Did he know a former bomber pilot, a veteran of the last war. Yes, he did. A certain Warren Casey. From there on the job was an easy one—criminal. Now, *where is my son?*"

For a moment, Warren Casey felt weary compassion for the other. The senator had worked hard to find his boy, hard and brilliantly. "I'm sorry, McGivern, I really don't know." Casey threw his glass, destroying the telephone screen.

He was on his feet, heading for the kitchen. He'd explored this escape route long ago when first acquiring the apartment.

The dumbwaiter was sufficient-

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ly large to accommodate him. He wedged himself into it, slipped the rope through his fingers, quickly but without fumbling. He shot downward.

In the basement, his key opened a locker. He reached in and seized the submachine pistol and two clips of cartridges. He stuffed one into a side pocket, slapped the other into the gun, threw off the safety. Already he was hurrying down the corridor toward the heating plant. He was counting on the fact that the security police had not had sufficient time to discover that this building shared its central heating and air-conditioning plant with the apartment house adjoining.

Evidently, they hadn't.

A freight elevator shot him to the roof of the next building. From here, given luck, he could cross to a still further building and make his getaway.

He emerged on the roof, shot a quick glance around.

Fifty feet away, their backs to him, stood three security police agents. Two of them armed with automatic rifles, the other with a handgun, they were peering over the parapet, probably at the windows of his apartment.

His weapon flashed to position, but then the long weariness overtook him. *No more killing. Please. No more killing.* He lowered the gun, turned and headed quietly in the opposite direction.

A voice behind him yelled, "Hey! Stop! You—"

He ran.

The burst of fire caught Warren Casey as he attempted to vault to the next building. It ripped through him and the darkness fell immediately, and far, far up from below, the last thought that was ever signalled was *That's right!*

Fifteen minutes later Senator Phil McGivern scowled down at the meaningless crumpled figure. "You couldn't have captured him?" he said sourly.

"No, sir," the security sergeant defended himself. "It was a matter of shoot him or let him escape."

McGivern snorted his disgust.

The sergeant said wonderingly, "Funny thing was, he could've finished off the three of us. We were the only ones on the roof here. He could've shot us and then got away."

One of the others said, "Probably didn't have the guts."

"No," McGivern growled. "He had plenty of guts."

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You can't hardly get more international than a story originally written in Russia and in Russian, translated into Esperanto and published for a second time in an Esperanto magazine issued in Sweden and edited by a Hungarian, and subsequently translated into English by an American. Dr. Ludwig Zamenhof, the peace-loving eye-doctor who devised Esperanto as a means of increasing understanding among peoples of diverse languages, would be proud. The literary magazine Norda Prismo *(North Prism) of Stockholm described Zhuravleva Valentina as a "Soviet engineeress [who] has written many fantasy-scientific stories."* Starluma Rapsodio *was translated into Esperanto by Alexi I. Vershinin of Odessa (which, come to think of it, raises the possibility that Ukrainian, and not Russian, was its first language). So much for the linguistic provenance and progress of the story. As for the story itself—scientifically, it is intriguing; but it presents not only an intellectual appeal, it says something to and about the emotions as well. And we find in it, in these troubled times, a note of hope, too. Asked to point out the star Procyon, the astronomer Jungovskaya replies that it is "There beyond the neighbors' house, to the right." This is not the language of pure science. It is the language of the heart—and this, after all, is more international even than Esperanto.*

STARLIGHT RHAPSODY

by Zhuravleva Valentina

(translated by Donald J. Harlow)

THE WEATHER ON THAT NEW Year's Eve was peaceful, which is an uncommon occurrence. The clouds that had hung over the city only the day before were slowly spreading apart, like the curtain in a theater, and uncovering the starry sky.

The fir trees stood straight and unmoving, silvered with snow,

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like an honor-guard waiting for the New Year, along the Kremlin wall. From time to time a weak gust of wind pushed a handful of snowflakes away from their branches, showering them down onto the passersby.

But people took no notice of the night's charm. They were in too much of a hurry. In half an hour the New Year would arrive. The flow of people, noisy and excited, loaded down with packages and packets, moved faster and faster.

Only one person seemed not to be in a hurry. His hands were shoved deep into the pockets of his overcoat; attentive eyes glimmered from under the rim of his soft hat. Many people from the human flood recognized his lean face and short grey beard. For that reason he had turned off into a side street. There he did not need to respond to the numberless greetings, nor explain to his acquaintances why he preferred to wander on the streets during the New Year's night. The poet Constantine Alexeëvitch Rusanov could not have said what unknown power was forcing him to seek solitude in the New Year evening. He felt no desire to think about poetry. Perhaps that was sad, because this New Year was the sixtieth of Rusanov's life.

Rusanov moved on, fixedly listening to the grinding of snow under his soles. Beside a street-lamp post he suddenly found that his way was barred by a snow-castle, whose turret shimmered with snowy diamonds under the electric street-light.

"Unfinished," he thought, noticing a child's sled and shovel lying nearby. Suddenly he was struck by an absurd desire to finish the fortress wall. That would really be a New Year's Morning surprise for the children.

Rusanov leaned over to pick up the tiny shovel, but at that moment someone struck him from behind. Falling into the snow, he heard the sound of broken glass and the cry:

"Oh, I'm very sorry!"

There was so much embarrassment in the voice that Rusanov could not be angry. A pair of hands helped him to his feet. A small girl in a green sport-jacket stood before him. Confusion was visible in her eyes.

"I'm very sorry," she stammered again.

She stepped carefully around Rusanov and picked up a small packet that lay near the street-lamp post.

"Broken . . . I think . . ." said the girl sadly.

Rusanov felt guilty. "What happened?" he asked.

"I was carrying the plate," she explained, "a negative . . . and pushed it against the pole."

The girl unwrapped the pack-

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et. A strange enough negative, he thought, for he saw a black background and on it a light ribbon streaked with thin black lines.

"What is it?" wondered Rusanov.

"A spectrum. That is the spectrum of the star Procyon. Do you understand?"

Rusanov looked at the girl with some interest.

"About sixteen," he thought, and immediately corrected himself: "No, older! Perhaps twenty-five or twenty-six . . ."

"Listen to me," he said. "Where were you running to in the middle of the night with the photo?"

"To the telegraph office," the girl replied. "It's a great discovery."

Rusanov laughed mildly. He liked unexpected and out-of-the-ordinary meetings. His humor suddenly improved.

"Discovery?" he asked again.

"Yes, Constantine Aleyeëvitch. I knew you at once."

Rusanov laughed.

The girl looked at his face suspiciously. Should she tell him or not?

"Look here," she began. "I found in the spectrum of Procyon . . . But do you know enough about spectra? Wait a moment, I'll explain everything to you."

Rusanov did not immediately understand the essence of her somewhat garbled story. She spoke rapidly, from time to time asking: "Are you certain that you understand?"

She did not stick to chronological order in her tale, and Rusanov could only conjecture about much of it.

It seemed that she had become enthusiastic about astronomy while still in high school. After graduation from the Department of Physics of Moscow University she had departed to work in the observatory in Siberia's Altai Mountains.

The first disillusionment: instead of making world-shaking discoveries, she had carried out trying and tedious work about classification of photographs of stellar spectra.

After four months of this she imagined that she had made a discovery. But the director of the observatory had dryly explained: an error.

Three more months and the second burst of joy and . . . a new error, the other disillusionment.

The months passed. Work, work, and more work. Nothing even slightly romantic. Numberless photographs of stellar spectra. Calculations. Classifications. And not even a single discovery. It seemed that her whole life would pass in this monotonous way. And suddenly . . .

"You understand," she continued, "from the beginning even I

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could scarcely believe it. It's certainly not very agreeable to repeat ceaselessly, as though to a child: "you have to work, but not to dream . . .' Yes, but it was so evident. 350 spectra from Procyon lay before me. The other astronomers had seen the spectra separately, but I looked at them all at one time. And, you understand, it seemed that a picture was formed out of the separate lines. Such things happen, don't they? From 350 spectrograms I chose 90 according to the order in which they were photographed. All of them had the same background: the lines of non-ionized metals. That was the spectrum of Procyon, already long known. But besides that on every spectrogram I saw the line of one more element. The first spectrogram had the hydrogen line, the second the helium, the third the lithium . . . They followed in natural order to thorium, the ninetieth element of the Mendeleevian periodic table of the elements. You understand, that seemed as though someone had intentionally placed the elements in a precise sequence—that is, according to the periodic table. There is no explanation in nature for this fact, except for one: those lines are signals sent by intelligent beings."

"Do you really believe that?" asked Rusanov, very seriously.

"Certainly!" the girl cried out. "Take, for example, the separate sounds that can be heard in nature. Well, if you listen to the same sounds arranged as a musical scale, can that be without the help of a being endowed with wisdom?

"I was afraid of telling anything about this discovery, supposing that it would just be another error. Later my vacation began. I left as though in a dream. During the trip I reproached myself: Why had I not told anyone. Although I had already arrived in Moscow, my thoughts were still in the observatory."

They were still standing under the street-light on the quiet side street; Rusanov was looking fixedly at the snow-castle in silence.

"You . . . you don't believe me, do you?" asked the girl.

To be completely honest, Rusanov believed her no more than he would have believed someone who had stated that the seventh continent had been discovered somewhere in the Caspian Sea.

"Can you tell me your name, girl of science, who with a blow knocks people from their feet and takes pictures of the stars," he said, avoiding the definitive word.

"Alla," she answered. "Alla Vladimirovna Jungovskaya, astronomer."

"Alla Vladimirovna Jungovskaya, astronomer," Rusanov repeated to himself, and thought: "No, she doesn't look older than sixteen."

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Then he felt that he should say something kind to her.

"Let's have a look at that . . . that spectrogram," he finally offered.

"Please," said the girl with joy, "let's go to my home. I'll show them to you there."

Until now Rusanov had understood only one thing: in his new acquaintance were mixed the traits of maturity and youthfulness. Life had taught Rusanov to come to conclusions about the people around him. While still in Spain he had memorized the words of a commissar of the International Brigade, an ex-instructor of mathematics: "Judge men only after a second encounter."

"Anything can happen. Out of the mouths of babes,' he smiled internally, "but she does not seem at all like a child . . . Astronomer . . . Alla Vladimirovna Jungkovskaya."

The girl apparently felt a need to say something.

"Look here," she said, "that discovery seems simple and understandable after it has been made. See here. Let's suppose that Procyon has its own planetary system. Let's also suppose that rational beings from one of those planets has decided to broadcast a signal into space. Radio waves are useless: they spread out too easily. Not gamma-rays or Rontgen-rays—they would be quickly absorbed. That shows that the most easily used would be the electromagnetic waves with interspatial wavelength, or, in other words, light waves, light.

"Think further about the idea: what would have to be sent across —that would have to be something understandable to all rational beings. Letters of the alphabet? But they differ. Ciphers? But there exist different systems of calculation. We can generally say that there exist on diverse worlds no two objects similar to each other besides one—the Mendeleevian table of chemical elements. It is something common to all worlds. On all planets the lightest chemical element is hydrogen—afterwards helium, lithium, and so forth. The Mendeleev table is easily sent across via light. Every chemical element has its own spectrum, its own passport. You understand, when I think about it, it seems to me that my discovery is not just chance, but a law . . ."

Rusanov raised his hand, as though he were inviting her to listen, and Jungovskaya became silent. They stopped. The Kremlin tower bells resounded clearly in the frosty air.

"Happy New Year!" said Rusanov and Alla responded with a silent smile.

They stood quietly, listening to the sound of the bells, which died away with distance.

Afterwards they walked faster.

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"Answer me, respectable guardian of the stars," began Rusanov. "Maybe that is some part of the processes taking place on the star."

"No, no! The temperature of Procyon is only 8000° C. and conforming to the lines in the spectrum the origin of this radiation has more than a million degrees. It must be some type of artificial brilliance, produced on one of the planets of the Procyon system. Its power is so tremendous that we can only try to imagine . . . and nonetheless . . . Here, please, we've arrived . . ."

She led him into her tiny chamber, in which the piano and bookcase took up almost half the space. There was also a map of the heavens, hanging from the wall, and on the table stood a lamp under a green shade.

Alla invited Rusanov to sit down and brought him an album. It was an ordinary album; people usually save family photographs in such. That was the first time in Rusanov's life that he had examined spectrograms, and they told him nothing. But he felt—he felt but did not understand—that she had indeed made a discovery. And he believed her, completely, without argument.

"Will you . . . you . . . believe me?" she asked quietly.

Rusanov answered without a smile.

"Yes, I believe."

"The whole thing seems incredible," she said; "it even seems to me at times that I am dreaming . . . I will awake and everything will disappear . . ." She became silent. The dull sounds of music came from somewhere nearby.

"I chose twenty more spectrograms apart from these. They were all different from the ordinary spectrum of Procyon. Look here, Procyon is a star similar to our sun. Spectral class—the fifth. The lines of neutral metals, like calcium, iron and others, are clearly expressed. But in these the backgrounds are ordinary, but contain completely extraordinary lines. And what is more wonderful, those of some elements together. That forces me to believe that ninety previous spectrograms are a kind of alphabet, and these twenty-two are a message . . . a letter . . ."

"And you have deciphered it?" interrupted Rusanov.

Alla shook her head.

"No. The task was too difficult for me. From a logical viewpoint it would have to be a very simple system. I don't know . . . I tried . . . but nothing happened. But the two spectrograms . . . You understand, I am not even certain myself . . . Don't laugh . . . Maybe it's only autosuggestion. Who knows? . . . But these two spectrograms immediately drew my attention. There was a feeling that I was looking

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at something truly intimate but written in a foreign language. And only when I was on the train, traveling to Moscow, did I conjecture that . . . You probably know that in the Mendeleevian table of the elements the properties of elements are repeated after every eight numbers. If we leave out the last number we get the octave . . . Just as in music. The sounds repeat after every seven tones. And then I saw a scale on the spectrogram. They say that it's dangerous for researchers to guess ahead. But I intended to find a musical score on the spectrograms, and it seems that I found it . . ."

"And you . . . transcribed that . . . music?" asked Rusanov and shivered: his voice sounded strange, as though it had come from far away.

"Yes, I wrote it." Jungovskaya went to the piano. "If you want . . ."

"A moment." Rusanov nervously paced across the room. He stopped before the window.

"Is it possible to see Procyon from here?"

Jungovskaya shoved the curtain aside.

"There beyond the neighbors' house, to the right . . . Do you see? . . . Its light has been traveling for eleven years . . ."

Rusanov regarded the shining star. He was a lyric poet and knew how to observe the mild charm of the middle-Russian nature, knew how to show in poetry that which Levitan had demonstrated with the brush. Rusanov had written quite a bit of poetry about love, and in his very intimate and slightly sad verses a smile sometimes penetrated through, like a sunbeam through a veil of cloud. And the stars remained for Rusanov the symbol of the faraway and unattainable.

"Yes," Rusanov answered quietly, "play it, please!"

He understood nothing about spectral analysis. But he knew music. Only music could tell him whether the girl was right or not.

And Rusanov grew emotional. It was only with tremendous willpower that he could force himself to leave the window, to sit down.

Jungovskaya raised the piano cover. Her hands paused over the keyboard for a fraction of a second. Then she touched the keys. The first chord sounded. There was something alarming in it. The sounds flew upward and slowly died away. And new chords followed immediately.

In the first moments Rusanov heard nothing besides the savage combination of sounds. But then the melody—two melodies!—emerged. They wound together and the first of them slowly seemed to carry the fast and impetuous second. The sounds became inflamed, like sparks from a fire, and died; in their combination there was something intimate up to

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pain, and at the same time foreign and incomprehensible.

It was music, but of a type not at all customary. In the beginning its internal characteristics caused it to oppress, to humble. It seemed to carry inhuman, alien, superior, higher feelings.

Sometimes the hands of the pianist paused on the keys. And again they suddenly seemed to acquire new strength. And then the strange double melody flared up. It sounded louder and more convincingly. It seemed to attract, and Rusanov went unconsciously, as though obeying that attraction, to the piano.

He saw neither walls nor table nor lamp—he saw nothing besides the fingers feverishly running over the keyboard. His heart beat crazily, as though it were trying to hold to the speed of the music. His eyes misted . . .

The sounds shivered, pounded, as though they were trying to pull themselves out of the crude instrument. The piano could not sound out the whole melody, but compressed and broken it lived and called more strongly, more obstinately . . .

The music spurred his heart, here throwing itself skyward like a whirlwind, there ending in a painful sigh.

It was full of all human feelings, and yet it had no feeling, just as the sunbeam remains colorless despite its being the combination of all colors of the rainbow . . .

For a moment the music ceased, and then burst forth with new force. No, it did not burst forth, it exploded! In a savage whirling the sounds flew up, joined together, and . . . disappeared. Only the single sound, soft and delicate, died away *adagio*, like the last flame of a burned-out fire . . .

And then there was silence. It seemed incredibly drawn-out. Then into the room there came the customary Terrestrial sounds —a distant train whistle, voices.

Rusanov went to the window. Over the roof twinkled the bright star Procyon of the constellation Canis Minor. And its light seemed to emit a mysterious and solemn music.

WATCH FOR OUR MARCH
ALL STAR ISSUE
(on sale January 30)

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Wenzell Brown has travelled widely over the surface of the Earth (graduate scholar in London, research fellow in Denmark, school teacher in Puerto Rico, college professor in China), and widely under the surface of men's minds. His interests rest "in particular [on] what lies behind the malformation of character, and what has brought about such complete deviations from the norm.

This, of necessity, requires original research, as there is apparently no book on the subject." In this story, his first for F&SF, Mr. Brown combines an original interpretation of a classical Fantasy theme with a unique reversal of a classical form of obsession. He is one of our few contributors to have received the "Edgar" *award of the Mystery Writers of America.*

THE FOLLOWER

by Wenzell Brown

HENRY AND I ARE BOTH INTELligent men. But Henry is not as intelligent as I. That is why we have decided that it is I who should attempt to elucidate the details of our joint crime, the motives of which appear to baffle the police.

Henry suffers from, or I might say indulges himself in, a persecution complex. I, too, have certain obsessive or compulsive drives but they do not fall into such a pat classification.

During my mother's long drawn-out final illness, there was ample time for reading. Psychiatric case studies were my favorite diversion. I have read them by the hundreds but, if there is an exact duplication of the mental aberration which is mine, I doubt that it has ever been chronicled.

In appearance I am an ordinary man. Middle-aged. Medium in height. Perhaps a bit slight of build. My coloration is medium too and my features undistinguished. People who meet me seldom remember me and my commonplace name, George Jordan, rarely sticks in their minds.

During my school days I received average grades though I sometimes suspected that teachers, having no recollection of me

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at the time that grades were dispensed, automatically jotted a C beside my name.

My school mates tended to ignore me but, though I had no friends, this was compensated for by the fact that I was never the target for bullying or ridicule as were some of my more conspicuous fellow students. I passed unnoticed in the school yards and corridors and, when I wished, I could attach myself to the fringe of a group without causing comment.

After graduation from high school I secured a position as a stock clerk. The work did not tax my skills and I suffered from boredom. In time I drifted away but, after a period of unemployment, I was forced to take an identical position with another firm. This pattern was repeated until I accepted the inevitably of my status and made no further attempt to find release from the monotony of routine.

My mother was the one person in the world who seemed to regard me as an individual. Although an unimaginative woman, she catered to my none too exacting whims in the matter of food and entertainment. My free hours were spent almost exclusively in her company. We ate our meals together and occasionally attended the neighborhood moving picture theatre. Our evenings were usually spent reading, listening to the radio or, in more recent years, watching television.

I was close to forty at the time of her death. I was not wracked by grief but I experienced a more terrible suffering, that of utter desolation. A more aggressive man might have successfully altered his life. I had no idea where to start. The rent on our shabby apartment was frozen and, as I had spent my entire life in the neighborhood, it seemed wise for me to remain there. My job anesthetized my days but the long evenings were nightmares of loneliness.

I could rationalize my subsequent action but to do so would be false. I acted out of blind instinct. Somewhere there was someone whom I must persecute, an individual who must feel the explosive wrath of my accumulated frustration. But who? How did I establish the contact?

I wish to make it clear that I had no sense of being persecuted myself. Mankind has always treated me with indifference but never with venom. I bore no grudge against any individual nor was there any person with whom I desired intimacy. I merely wished to make myself felt, to create in another the vague sense of uneasiness that occurs in an encounter with an alien and obscurely threatening presence.

The telephone was my first chosen weapon. My mother had

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installed it during her illness to order medicines and groceries and to communicate with her doctor. The instrument was coated with dust for, since her death, I had had no occasion to use it and its shrill note had never broken the silence of the apartment. I had continued to pay the monthly bill out of apathy and because I did not wish an intruder, in the guise of a repair man, to disturb my private domain.

One night I approached the phone gingerly, lifting the handpiece off its cradle. Without conscious volition I spun the dial seven times. From somewhere far away I could hear the feeble buzz of the sound tone summoning my victim. I waited with my heart beating like a trip-hammer to hear his or her voice. I had no idea what I would say but I could feel words, ugly and vicious, gathering in my throat, ready to be spewed out.

But there was no answer. The phone rang on and on in an endless gasping monotone, until at length the instrument slipped from my limp fingers and lay prone on the desk. The buzzing sound continued but I no longer heard it, nor did it occur to me to disconnect and ring another number. The fates had cheated me, I thought, rendered me powerless to establish contact with my fellows.

The next night I was impelled toward the phone again. I do not know whether I subconsciously selected the same number or not. I did not watch the dial but sightlessly rammed the numbers home, then listened hopelessly to the far-away ringing. In desperation I hung up, tried again and again. Sometimes in place of the distant bell there was substituted the coarse burr of a busy signal or a series of meaningless staccato clicks. But only once did I hear a voice, the tag end of a weather report, concluding with the automatic words, "this is a recording. Thank you."

Sometime a human being must answer me. Then my angry words would pour out to shock, to frighten, to punish. But this never happened. I was alone in my bitterness and futility.

I took to the streets, striding along at first in a blind rage; then stopping, listening. Somewhere up ahead of me were footbeats matching the tempo of my own. How long had I been following them? In the back of my mind, I realized that I had picked up the trail of the unknown person some time back. I plunged ahead, anxious for a glimpse of my quarry. I moved through the dark shadows cast by a high wall and I thought I heard the footsteps once more, frantic in their attempt to evade their pursuer. But when I emerged from the shadows, there was nothing, no one, no sound or

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sign of life in a street of abandoned warehouses.

I stared about me incredulously, then it occurred to me that my victim was hiding in some dark doorway, his pulse palpitating, his breath catching in his throat. I returned through the shadows, my eyes searching, questing in each nook and cranny but still I caught no glimpse of a human form.

A car swung into the block, its blazing headlights illuminating the deserted street in a bright glow. The walls were solid, the doorways empty. I was alone.

The next night I prowled the streets again. But this time I was on guard. I made no random choice but selected carefully the footsteps which I would follow. A woman's tripping footbeat, accented by the tap of her high-heeled shoes.

The woman herself was invisible to me, one of a half dozen blurred shadows moving along a dimly lit street. I did not try to identify her further but followed the sound doggedly, head-down, concentrating on diminishing the distance between us. Sooner or later the woman must realize that she was being followed. I could taste the joy of her fear. I imagined her looking surreptitiously over her shoulder, hesitating, stopping, then scurrying on in alarm, perhaps in panic. I would not approach too closely. I would not let her see my face. But I would stalk her wherever she went, haunt her like a specter, without giving her just cause for complaint. She would never be certain if the threat lay within her mind or if it had reality.

A raging sense of power swept through me. I would be felt, feared, yet remain invulnerable, virtually invisible. I caught myself walking too rapidly, anxious to overtake my prey and look at her. It made no difference whether she was young or old, stout or slender, beautiful or ugly. All that I wanted was to see fear bloom in her face, to see her eyes touched by bewilderment, confusion, some inner doubt.

I reined myself in, compelled myself to be the patient, dogged follower, but I could not curb the jubilation of my spirit. My pleasure was to be short-lived. The woman was walking steadily away from the semi-deserted streets toward the brightly lit ones.

I shortened the distance that separated us so that there would be no danger of losing her. The marquee of a theatre loomed up ahead. For a moment I caught sight of her silhouette, wavering in the flickering movement of shifting lights. Then, as I faltered, the theatre debouched its late audience. At first there was a mere trickle; laughing teen-agers, solid middle-aged couples, groups of chatting women.

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The trickle turned into a flood, clogging the sidewalk beneath the marquee, overflowing into the street, spreading in every direction. I rushed forward, trying to pick out the tripping footsteps but their sound was drowned out by the clatter of many other feet, laughter and loud voices.

I was in the midst of the crowd, hemmed in by human flesh, but terribly alone. I wanted to shout for silence but doubted that my voice would be heard and knew that, if it were, it would not be obeyed.

I strained to hear the tap of the high heels but I could not do so. I ranged this way and that, stopping, listening, sometimes moving a few yards in pursuit of clacking heels only to realize that the distinctive pattern was not the same. At length no other person remained beneath the marquee. The lights above me faded and flickered out. Somewhere in the far distance I thought I could hear the heels, the sound mocking at me, ridiculing me, adding to my frustration.

My sense of defeat was complete and yet I tried again on the next night and the next. Each night I thought I was following someone. There were footsteps up ahead of me, guiding me, challenging me, pulling me behind them as though by a magnet. Then suddenly the sound would cease. I would rush ahead to an empty street corner, a locked door, a stretch of abandoned roadway.

It was the same with the telephone. No matter how many times I tried, my only response was clacks, burrs, the distant sound of an unanswered bell, but never a human voice.

Time collapsed. Weeks passed. Perhaps months. I dropped my attempts to reach another person by phone. I shunned the streets and the lure of phantom footsteps. I huddled in my room, my gaze fixed sightlessly on the television screen that created some slight illusion of companionship. I was a failure, a persecutor who could find no victim, a follower whose leader was a will-o'-the-wisp.

I ceased reporting for work. My mother had left me a small competence, sufficient to pay the rent and to feed me if I ate frugally.

The days washed over me and I seldom went out except for the purchase of necessities.

And then I discovered Henry.

I knew him at once for what he was. A man pursued, in flight from no one. A man spied upon by invisible eyes, tormented by imaginary tortures. A man growing slowly mad because his persecutor took no tangible shape.

I saw him walking along the sidewalk, his steps quick and nervous. He craned his neck around from time to time to look behind him. He shied away from

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doorways and his eyes darted from one side of the street to the other. I could feel the fear in him, ready to burst out and send him into senseless headlong flight.

Henry needed me, needed the footsteps behind him that would lag when his lagged, that would speed up as he hurried on. I waited until he had passed me for the distance of half a block then I tossed the carton of milk which I had purchased at a delicatessen into a wire trash basket and took off after him.

Henry was sensitive, his ears attuned to danger. In no time at all, he was leading me through the city. Now fast. Now slow. Stopping in front of an illuminated window display, hoping to catch my reflection in the glass. Crossing the street, recrossing. Doubling back on his trail. Ducking into a dark alley, his feet pounding on cinders. Stopping still in a shadow, while I waited too with baited breath.

Henry led me a glorious chase that night, alternately trying to shake me and to approach close enough to peer into my face. But I outwitted him. I was always behind, following him no matter where he went.

Eventually I trailed him to his home. He lived less than two blocks from where I was domiciled. The building was much the same as my own, a run-down, four-story graystone, with no elevator, grimy hallways, creaking stairs, a dingy little foyer lined with rusting mailboxes.

With infinite cunning I edged close enough to observe him as he entered the foyer while, at the same time, I kept out of sight. He removed a circular from a mailbox and tucked it into a pocket of his threadbare overcoat. Then he unlocked the streaked plate glass door beyond and disappeared from view.

I was trembling as I crept to the mailbox. I more than half expected that the nameplate would be blank, that my victim would prove an hallucination, a man without a name, without existence in fact. But the name was there, printed crudely in pencil on a strip of discolored pasteboard: HENRY SMITH. 4A.

I knew what I had to do next, but I must time it just right. I pictured Henry plodding up the shabby old stairs, stopping from time to time to catch his breath and peer down the stairwells, listening, watching to see if I were still pursuing him.

If the numbers ran as they did in my apartment house he would have to mount to the top floor. I waited until I believed he would be just outside his door, then my finger pressed down hard on the buzzer. I could imagine his frantic scrambling with the keys, his confusion coupled with the certain knowledge that it was I who

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clamored for admission. He would not want to respond but he would be compelled to do so.

I let a minute pass, then another, before I pressed the button a second time. The rasp of the release grated on my ears. I turned and walked slowly away.

As I sauntered back home, I could feel his eyes upon me, watching me from the safe seclusion of his front window. He would not be quite certain which among the few stragglers I might be. He would be wondering, even as I had wondered about him, if I could be the product of his own fevered imagination.

Back in my own apartment, I was drawn to the telephone. The book lay in a crumpled heap beneath the desk. I had never used it before, selecting the digits at random. My hands trembled as I leafed through its thick pages. There were hundreds of Smiths and at least a dozen were Henrys. I did not expect to find him listed. But there he was, identification made positive by the street number.

I dialed with infinite care. The dial tone hummed a half dozen times. Then there was a click and a tiny hollow sound like the muted roar of a seashell held close to one's ear.

Henry's breath was shallow with fear and his cringing was a palpable thing conducted through space by the open wire.

His voice rose in a high-pitched whine. "Who is it? Who's there?"

I did not answer but cradled the phone, ever so softly, so that he would have to strain to hear the click of the disconnect.

In my mind's eye I could see him vividly, standing with the dead instrument in his hand, perplexed as to how his persecutor had found him, yet savoring the knowledge of my existence, almost exulting in the certainty that we were joined, that our loneliness was at an end.

The next night when I left the house, Henry was just ahead of me. He led me along a different route and once he tried to lure me into a tavern where he had a glass of beer. But I was not to be duped so easily. He did not come out through the door which he had entered but slipped through a side door into an unlit driveway. He picked his way along the hard packed earth to a transverse street. I followed so silently that I think he feared for awhile that he had shaken me.

He did not know which way to turn. It was as though he were lost, incapable of making a decision. Mercifully I crunched down hard on a bit of gravel. The crackle restored him to life and he stepped out briskly, almost jauntily, leading me once more through the dark maze of the city.

All that winter and spring I followed him. But we never met

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face to face, never exchanged a word. I phoned him at least once each day. After the first time he did not speak. But there was the open line between us, making us whole, complete.

Sometimes I sent him blank pieces of paper in the mail, using the cheapest of ten-cent store stationery, printing his name in a laborious, child-like scrawl on the plain white envelope.

I devised other means of tormenting him. Once I gained admission to his apartment house and chalked a senseless cabalistic sign on the panel of his door. Another time I sent him cream chocolates in which the centers had been obviously scooped out, sprayed lightly with a harmless gray powder, and fitted back crudely into their brown shells.

But it was the nightly ritual of the walk that truly bound us together and gave meaning to our lives. We were the persecutor and his victim; the persecuted and his tormentor. We who had been shadows became living men, each sustained by the other. There was a purpose to our days and, though it was obsessive, it was real. Neither of us walked alone.

I slept well those nights and so did Henry. We both put on weight. Our steps grew firm. We each had a sense of fulfillment, of destiny achieved.

It was during the first hot early days of summer that the stranger came between us. At first we thought his appearance accidental. One night he seemed to come out of nowhere. I was trailing Henry by the better part of a block when I gradually became aware of the stranger whose footfalls matched Henry's and therefore my own. He was an equal distance from each of us. In dead center of the invisible line that joined us.

Henry's uneasiness was clearly evident. He was always furtive, favoring dark byways, but from the start there had been a constant rhythm between us, like an elaborate wrought dance. Now he became positively jittery. As he passed through a rectangle of light that stippled the sidewalk, I could see him tug at his collar as though it were strangling him. I knew that he was sweating, cringing within himself, ready to break out into a run. And that would never do. To race through the streets would bring the police on the scene and violate the privacy of our secret union.

Henry glanced over his shoulder, then veered sharply to his left, picking the darkest of dark places, an areaway between two massive tenements. I hoped that the stranger would pass on and disappear from our lives forever. He did not. At the entrance of the areaway, he stopped to listen, then made his way into the deep shadows. I stopped in turn, listening to Henry's muted steps and those

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of the man who stalked him. I followed, my heart in my mouth, moving more silently than either of the men who preceded me.

Henry emerged into the next street and now he deliberately sought the glow of a lamp, standing spraddle-legged in the circle of light, hunched forward in timid defiance. The stranger halted and so did I. We both remained motionless until Henry whirled and walked off rapidly. Henry tried every trick and artifice he had learned to throw off a pursuer. He zigzagged, doubled back, changed pace, sought to lose himself in crowds and dashed through back alleys. But the stranger stayed with him, relentless in the chase, closing in a little as I too closed in, lengthening the distance when I fell back.

I could have wept in frustration. I was no longer following Henry but the stranger. Henry was no longer in flight from me but from the man who walked between us.

Each night after that the stranger was present. But his interference did not end with our walks. Now when I phoned Henry, his line would be busy. The heavy burr would pluck at my nerves and I could picture Henry, distraught, helpless, ready to burst into sobs, because he could no longer be sure whether it was I or the stranger on the opposite end of the line.

I would slam the handpiece back into its cradle. A dull vicious anger would make my head throb. I was being cut out, eliminated. I was a supernumerary.

The stranger caught on to every device which I had employed to harrass Henry. Now when I tiptoed up the stairs to Henry's door, I found it already splashed with a cabalistic threat. When I peered into the mailbox after the postman had made his rounds, I saw not one, but two cheap white envelopes bearing Henry's name.

Henry was approaching a crack-up and so was I. A man has a right to choose his own persecutor and the follower is entitled to select the individual in whose footsteps he will tread.

The situation was intolerable. The stranger must go. Although Henry and I had not spoken to each other, we were in telepathic agreement on this point. We knew that we must act or the stranger would usurp one or both of our identities.

I feared that some night Henry and the stranger might elude me to play their strange game without me. I was convinced that once this happened, the thread that joined me to Henry would be broken forever. Later I was to learn that Henry was obsessed by a similar fear. The stranger might lead me away from him and he would be abandoned in the frightening solitude of the night.

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We dared not wait much longer or we would be separated and destroyed. Henry reached his decision on the same night that I did. We were so perfectly attuned that we required no communication to warn each other of our joint intent.

We walked late that night. Henry led the way through a dark city made drowsy with sultry heat. At midnight he turned into a block with a solid row of brick houses joined on either side, a street moderately well lit, one from which there was no escape.

When Henry reached the end of the block, I had just entered. The stranger was midway between us.

Then Henry did a thing which he had never done before. He turned and walked directly toward me. And I, instead of retreating, advanced. The stranger half-turned then, as he saw me, stood stock-still, waiting for us to close in on him.

Henry spoke first, addressing the stranger. His voice was pleading, quavering. "Go away. Leave us alone. We don't need you."

The stranger shook his head.

"Go away," I repeated, and was surprised at the firmness of my tone. "Go away or we will have to kill you."

"I can't," the stranger said. "You know I can't."

"You must."

"No! No! Please, I beg of you." He was shrieking the words. I think that was what sealed his fate.

We struck simultaneously. Henry had armed himself with a kitchen knife, I with a length of steel pipe.

The stranger fell and Henry and I stood over him, still without speaking, but each of us with the knowledge that we must learn the identity of the man who lay at our feet.

We dropped to our knees beside him and our hands moved through the empty pockets until we found the frayed black wallet on his hip. Two stained and crumpled dollar bills fluttered out and an identification card.

We stared at the name: George Smith of no fixed address. My first name, Henry's last. In destroying George Smith, I think we both knew that we had destroyed ourselves.

We still crouched there, unaware of the opening windows, the babble of voices, the scream of a woman. The keening wail of a siren and the sharp brittle glare of a spotlight brought us back to life.

Henry jumped to his feet and ran. I followed him, a few paces behind. We did not go far. The trap we had set for the stranger was a trap for us too. The police cars hemmed us in. I saw Henry struggling in a policeman's grip a moment before I was seized.

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Henry was hustled into one of the cars, I into another. His led the way through the city to the huge slab-like concrete building that housed the jail.

George Smith was dead and we stood accused of his murder. We tried to explain but it was impossible. All that we drew were guffaws, the back of a heavy hand across our faces, the crack of a rubber truncheon across our knees.

Henry broke first. He seated himself at a table and signed a confession that we had killed George Smith during the commission of a robbery. There was no sense in holding out any longer. I followed him to the table and affixed my signature beneath his. Thus ended the ordeal of bright lights, pain, exhaustion and confusion.

We had our day in court. Our court-appointed lawyers recommended that we plead insanity. For Henry it might have worked, but not for me. I am eminently sane. And we did not wish to be separated. Instead we concocted a tale that we believed that the stranger was about to attack us and that we had acted in self-defence.

Even without the confession we would have been convicted. Too many witnesses had seen us close in on our victim, had heard him cry out, "No! No! Please, I beg of you."

They described how we had dropped to our knees and rifled his pockets. To them robbery was the only explanation.

The jury had barely filed out when they returned with a verdict of guilty of murder in the first degree.

The automatic appeals have failed, one after the other, and our time has run out.

Tomorrow Henry is taking his last walk, down the long green corridor to the execution chamber.

I will follow him.

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BOOKS

SPECTRUM II, Kingsley Amis and Robert Conquest, ed., Harcourt Brace & World, $4.50

Here is another collection of American SF, edited by Britons for the British, and now published in the United States. This roundabout fashion confused me when the first volume of what is seemingly destined to be a series was published, and I'm not clear about it yet. I suppose the likeliest answer is the name of Kingsley Amis, whose publication of NEW MAPS OF HELL guaranteed that henceforth much attention would be paid his opinions on the field. Inasmuch as one of his opinions was that Fredrik Pohl was probably the leading American SF writer, it comes as a surprise that the most remarkable thing about Mr. Pohl's name in relation to this volume is its entire absence from it. I do not quite share Mr. Kingsley Amis's earlier opinion, but surely my distinguished colleague the editor of *Galaxy*, *If*, and *Worlds Of Tomorrow* has written stories better than some of those included. One hopes that the author of NMOH is not given to *transient enthusiasms* . . . The outstanding inclusions are the, alas, late Henry Kuttner's "Vintage Season" and Wyman Guin's "Beyond Bedlam". The former, a beautifully styled and crafted tale of decadent diletantes who visit the past and view disasters for kicks, probably requires no further comment here. It is the latter which knocked me for a loop. Who is Wyman Guin? He has written about a future society of schizoids whose masterful use of drugs has not only limited the multiple personalities to two per body, but has arranged for them (called here, *hyperalter* and *hypoalter*) to share the body in five-day shifts. Mr. Guin's is a love story, too, and the details of the society are worked out in such beautifully logical detail that I must urge it be read by everyone who has not done so already. There are also stories by James Blish (vivid description of Jupiter's surface), Philip K. Dick (much too long—robots-made-by-robots-made-by-robots, etc.—One-of-us-must-be-an-alien), Isaac Asimov (rediscovery of mental/manual arithmetic by future computer-using people), Mark Clifton

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(psi, too long), A. E. Van Vogt (aliens-tricked-by-human). One cavil, re. Guin—a Mrs. Grania Davidson points out that schizophrenia and multiple personality are *not,* despite popular misusage, the same thing: take note.

THE HOPKINS MANUSCRIPT, **R. C. Sherriff,** Macmillan, $4.95

Here's an interesting point—Macmillan brings out an attractive book with illustrations for at least a dollar less than others charge for a lot of less attractive books without. And I doubt that the extra buck goes to the authors, either. Anyway—does *Journey's End* ring anything like the same bell in the 60's as it did in the 30's, when it was *the* War and Anti-War play? I doubt it. Pity. Anyway, again, its author, unnoticed by me at the time, in 1939 produced this very, very readable story of what happens when the Moon is scheduled to collide with the Earth, and thereafter. This theme will scarcely startle my two or three readers by reason of its novelty; no matter: read it anyway, do you hear me? It is in the form of a memoir written by one Edgar Hopkins, of the lesser gentry of England, poultry-breeder, member of the British Lunar Society, and not a man of the largest mind. Some of the social comment reminds me of the classical *Diary of A Disappointed Man* and, more recently, Richard Hayden's *Edwin Carp*—mild, acid, amusing, veddy British and very good. The Moon comes nearer and nearer on each revolution, Hopkins alternately shudders and tenderly feeds his hens. The catastrophe occurs, the results are not as expected, civilization totters . . . I must confess that I *like* a good narrative of a tottered civilization, even an over-tottered one; particularly if it is British and Bombless. Mr. Sherriffs is just first-rate, moving, dramatic without ever being melodramatic, tender, thoroughly engrossing. There is an intro by Yale Drama Prof. John Gassner, needlessly patronizing towards SF (good as *Hopkins* is, it *won't* compare, all told, with *The War of the Worlds,* sir); and an epilogue by Astromony Prof. Gassner explaining why Mr. Sherriff's catastrophe is impossible (hoity-toity, sir—and who asked you?); plus a very fine title-page—are title-pages coming *back?* Goody!—and equally fine illustrations by Joe Mugnaini. Also, good cover by S. A. Summitt. A thoroughly well-done volume. Don't just read it—buy it.

EXPLORERS OF THE INFINITE, **Sam Moskowitz,** World, $6.00

Subtitle is, Shapers Of Science Fiction. Sam has always been considered by this field to be its own historian, and this book should do

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much to advance his right to the position in the eyes of those outside the field. Gone is the ponderous prose of THE IMMORTAL STORM, his 20-years-ago-or-so history of SF fandom down to WW II; what we have here will not rank with, say, Coleridge's essays on Shakespeare, but it is good, readable informative stuff on Cyrano De Bergerac (yes, kiddies, the very same Cyrano De Bergerac who), Mary Wollstonecraft Shelley (the poet's much put-upon wife, creator of Frankenstein and Monster: gee, the darned people have written this stuff, haven't they?), Edgar Allan Poe, Fitz-James O'Brien (expatriate Irish and American author of a few fine gothick SF stories), Jules Verne, Edward Everett Hale (first to write of an artificial satellite; still, I wonder at his inclusion), "Frank Reade, Jr." (Lu Senarens, prolific dime-novelist), H. G. Wells, M. P. Shiel, A. Conan Doyle, Edgar Rice Burroughs, A. Merritt, Karel Capek, Hugo Gernsback, H. P. Lovecraft, Olaf Stapledon, Philip Wylie, and Stanley G. Weinbaum—whereby I for the first time learned that Weinbaum was (as "John Jessel") the author of *The Adoptive Ultimate.* Sam's not-quite-accurate comments on medieval Judaism raise questions in my mind as to his absolute accuracy on other matters—but probably no one but an academician could do better . . . and would, probably be dull. A must for every SF library.

DR. OX'S EXPERIMENT, Jules Verne, Macmillan, $3.95

When the learned and amiable Anthony Boucher, one of my August Predecessors, told me that Jules Verne had a sense of humor, I listened with a politeness that was neither conviction nor doubt. If Mr. Boucher had said it, it was so; from the recollections of *20,000 Leagues Under The Sea, The Mysterious Island,* and one or two Gernsback magazine reprints—all fuzzy and muzzy in my memory—I could recollect no evidence to support the statement. The evidence is now before me in *Dr. Ox's Experiment,* whose publication by Macmillan is in the nature of an experiment itself: the text runs along the length of the page and not along its width, and every page—*every single page,* mind you!——has an illustration. This includes the introduction by Willy Ley (*Professor* Willy Ley now, I am glad to say, he having obtained some of his long-overdue honor by being co-opted to the staff of Fairleigh Dickinson University), the epilogue by Dr. Hubertus Strughold, and a bibliography—also by Professor Ley. Dr. Ox himself is scarcely the protagonist of this droll tale, that place being more-or-less conjointly held by the Flemish and phlegmatic village of

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Quiquendone. Nothing of moment, no deed of action, no word of excitement, has occurred—been done—or spoken there since the Crusades. King Log and his loyal supporters have had a reign of unequalled and unbroken peace. To this outpost of quietness and slow time (principal industries: barley sugar and whipped cream) comes the inquisitive Dr. Ox—King Stork, personified in the cause of Pure Science—with his scheme for piping the town for illuminating gas. Perish forbid that I disclose what happens next. Buy three copies of this delightful volume—one for your nephew, one for your aunt, and one for yourself. The illustrations of William Pène du Bois are rather better than his cover, and the period illustrations of Verne and his stories are enchanting.

—AVRAM DAVIDSON

THE STAR ROVER, Jack London, Macmillan, $4.50

The Star Rover (first published in 1915, and now brought out in a new deluxe wrapping) is a curiously unclassifiable book, and the reader who starts reading it without some knowledge of what it is will probably get a few shocks before he's through. It starts like a horrible—and horribly realistic—novel of prison life; Darrell Standing, an "intellectual" sentenced to life for manslaughter, is framed by a prison informer, and a brutal warden tries to "break" him in the "jacket." So far, a straightforward piece of special pleading for prison reform.

Under the torture of the jacket, Standing learns from a fellow prisoner how to "die in the jacket"—abandon his body—and thus, freed of space and time, begins to re-live his past lives; as a Renaissance cavalier, as a small boy crossing the Mormon desert, as a marooned sea-cuny, as a wandering Norseman in Rome's legions. Each of these stories, complete in itself, is a typical Jack London story of struggle and survival against agonizing odds, giving the book strength and unity.

Essence of London, essence of fantasy—and so convincing is this book that the publishers evidently feared a Bridey Murphy outbreak of reincarnation-hysteria; for they have descended to the depths of the ridiculous by appending a careful epilogue by Gardner Murphy—whoever he may be—carefully disclaiming scientific validity for London's reincarnation hypothesis. The book is *just* that convincing.

—MARION ZIMMER BRADLEY

THE DUNWICH HORROR AND OTHERS, H. P. Lovecraft, Arkham, $5.00

Here is the next best thing to owning one of the 1200 copies of

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The Outsider and Others: a generous selection of the finest stories in that volume, a good 190,000 of its 375,000 words of Lovecraft's best fiction by my estimate, printed on the same Winnebago Eggshell which the decades do not darken. I enthusiastically recommend it to readers and libraries everywhere.

The stories and novelas included are: *In the Vault, Pickman's Model, The Rats in the Walls, The Outsider, The Colour Out of Space, The Music of Erich Zann, The Haunter of the Dark, The Picture in the House, The Call of Cthulhu, The Dunwich Horror, Cool Air, The Whisperer in Darkness, The Terrible Old Man, The Thing on the Doorstep, The Shadow Over Innsmouth,* and *The Shadow Out of Time.*

This is a definitive rooster of Lovecraft's best. I'd admit a couple to include *The Silver Key, The Festival, The Temple,* and *The Dreams in the Witch-House*—personal preference is inescapable!

Leading off the book is August Derleth's most thoughtful essay to date on HPL. He is content to denominate him as "a major writer in the minor macabre division of literature," he admits that the Cthulhu Mythos was not to HPL the formalized thing it was made after his death, he concedes the influence of Dunsany on a few of the minor tales, and he shrewdly and amusingly answers Colin Wilson's view of Lovecraft as "a horrifying figure." In fact, I'd say that the essay covers all the important points except the one Sam Moskowitz and I have been hammering away at for years: that many of the beings in the Mythos are not gods or devils, but finely-wrought and ingeniously-historied extraterrestrials, and that most of Lovecraft's later tales are science fiction with a slight-to-moderate supernatural dusting.

Since I still have my pen (You don't catch me saying foot!) in the F&SF Books section, and a few words to go, I'll use them commenting on Avram Davidson's recent comments on Eddison's *The Worm Ouroboros* (Oct. 1963).

Dear Avram, the common people are as much in *The Worm* as they are in Shakespeare, even if the princes and princesses do steal the spotlight most of the time: they appear as rustics and menials, it's true, but they're there—see Mivarsh, see the rustic narrator of the Battle of Krothering Side, see the sousing of Corund with ordure by the Demon soldiery before the burg of Eshgrar Ogo. Moreover, the princes and princesses do not merely "kiss and declaim and posture"; they have guts and homely sides—attend the colloquies of Gro and Corund, hist the pillow-talk of Corund and Prezmyra the night before the Battle of Carce, dice and drink with Corinius, die with Corund, observe Corsus firing his daughter Sriva with strong wine

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before sending her as a love-offering to King Goryce and venture (if you dare) inside the Iron Tower to witness the King's receiving of that embassage, watch Goryce towel away his sweat from the hunt, sniff (cautiously!) at Jus and Brandoch Daha besmeared with the blood of the mantichore, mark how the Witchlanders bet on the fight between the spiders and toad under the upended crystal banquet goblet . . . Hell, if this be nothing but marionettry and romantic puppet-squeakings, then Webster and Tourneur never gave us anything else!

—FRITZ LEIBER

PUBLICATION NOTED

Asimov, Isaac. *Foundation, Foundation and Empire,* and *Second Foundation.* Doubleday. $3.50 each.

Budrys, Algis. *Budrys' Inferno.* Berkley. 50¢.

De Camp, L. Sprague. *The Bronze God of Rhodes.* Bantam. 60¢.

Galouye, Daniel F. *Lords of the Psychron.* Bantam. 40¢.

Jenkins, Cecil. *Message From Syrius.* Bantam. 40¢.

Simak, Clifford D. *All The Traps of Earth.* Macfadden. 50¢.

Parrinder, E. G. *Witchcraft: European and African.* Barnes & Noble $5.00.

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THE TREE OF TIME

by Damon Knight

(Conclusion)

SYNOPSIS: "What is a Zug?"

A nonsensical phrase! But Gordon Naismith could not put it out of his mind. It was odd what a shock had gone through him when the East Indian girl, Miss Lall, had stepped up and spoken those words during one of his classes . . . as if, deep down in his subconscious, the question *did* mean something—and something vital.

Could it have something to do with the lost thirty-one years of his life, before the bomber crash that had wiped out his memory?

Then the machine that Bursar Ramsdell had handed him that same afternoon, saying it was from a man named Churan—blue, satiny metal, all its curves flowing together. What was its function? Why had it been sent to him?

Part of the answer came that evening while he was being interviewed by Dr. Wells, the U.C.L.A. psychiatrist. The phone rang: it was Dean Orvile, almost hysterical, calling to say that Ramsdell was dead—horribly burned to death—and Naismith had been the last one to see him alive! "I'm sending the police!" he shrilled. "Don't let him get away!"

Naismith, aroused and angry, did not wait. He left Wells' office, caught a cab and went looking for Churan. He found the man's office, but it was empty, deserted—with an odd smell lingering in the air. . . .

Back at his apartment, another unpleasant surprise was waiting for him. The body of Mrs. Becker, his cleaning woman, lay on the floor. She was dead—horribly burned, like Ramsdell.

Naismith called the police and was arrested. Three hours later, a lawyer he did not know got him out on a writ. When Naismith asked who had sent him, he answered, "Your friend Churan." . . .

There was a common denominator in the two deaths, Naismith realized—the machine. Both Ramsdell and Mrs. Becker must have held it; Naismith had found it moved from the table, where he had left it, to a closet shelf. Yet the machine had not harmed Naismith himself!

Next day, still in a mood of suppressed fury, he went back to the campus and cornered Miss Lall. A Zug, she told him, was a monster—very fierce, very intelligent; some grew thirty feet long. She and Chu-

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ran wanted him to kill one. The Zug was in a certain place, hard to reach. When he was "ready," they would take him there. She would say no more. Angered, Naismith seized her arm, but let go at once. Her flesh was as cold as if she were a lizard—or a corpse. . . .

His only chance, Naismith thought, was to clear up the mystery of his own past. He went back to Wells, forced him to use a dangerous deep-probe technique. When he came out of it, Wells was dead—battered and broken. Pursued by police, Naismith ran into a tube station, found Lall and Churan waiting for him. Now he had nowhere to go except to them; now he was "ready."

The two aliens, using a transparent bubble of force created by the machine they had given Naismith, transported him into the future to a buried spaceship near the site of Denver. Their purpose, they told him, was to train him for the task he had to do. After teaching him their language with a mechanical educator, they took him forward again, into a cavern below the city that had once been Chicago. Here, they told him, was the prototype of the first time vehicle—a tapered bar of metal, six feet long, with two cross-pieces. It was unfinished, the propulsive unit not installed. "If you boarded the machine as it now is," Churan told him, "you would simply fall through the Earth, and go on falling."

What Naismith had to do was to finish the vehicle, using the plans and tools he would find here, and then go forward again, to the City, where the monster was waiting.

Where were the technicians who had been working on the machine? Dead, Lall told him—"Killed in the first attack. That black cloud you saw, just before we stopped—that was the bombs."

When he got out of the force bubble, the aliens' expressions changed. "One thing she forgot to tell you," said Churan, with an unpleasant smile. "The *second* attack is going to take place in just thirty seconds. That is the one that pulverizes this city to a depth of fifty meters."

The aliens had told him two conflicting stories. One was a lie—which? As the final seconds ticked away, Naismith made his decision. He leaped to the skeletal machine, found a lever under his hands, pulled it over hard.

The world went grayish and unreal around him. As it toppled, the machine began to sink into the floor—falling, as if the stone floor and the earth beneath it were so much mist.

Before the darkness closed over his head, the last things he saw were the triumphant smiles of the aliens.

Chapter Seven

AS THE DARKNESS CLOSED OVER his head, Naismith's first emotion was a consuming rage. Gathering himself, he kicked against the crossbar, flung his body upward—and was hurled back again by a curved, elastic wall. He landed hard against the metal framework, which began to revolve slowly and

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dizzyingly around him. The falling sensation continued.

His one opportunity was gone: for a moment that was all he could think of. If he had been able to leap out of the machine's field during the first second of his fall . . . but it was impossible to get out of the field without turning off the machine, as he had just discovered.

In fact, the opportunity had been illusory. He had been doomed from the moment he turned on the machine. Now he was falling, falling endlessly—to what fate?

The aliens had told him one truth and one lie; he had taken the lie for the truth, exactly as they had intended him to do.

Rage and despair all but choked him, as he clung to the metal framework, falling, in darkness and silence. He wanted to live!

A faint hope came, as his fingers touched the control knobs on the crossbar. If the aliens had lied about this, too. . . . Cautiously he tried one knob after another, avoiding the lever which had turned the machine on. There was no perceptible result, except that, when he had turned the third knob, he felt a cool breath of air.

There was something he had not even considered: at least he would not smother on his way down. . . . But he did not succeed in arresting his fall, or changing its direction, so far as he could tell, by a hair's breadth.

The thought of the gulf below him was hideous. What, actually, was happening to him at this moment? The answer came at once. He was acting out one of the oldest physics problems in the book, something that every freshman was familiar with—the imaginary tunnel drilled through the Earth.

In fact, his body was a harmonic oscillator. Assuming a homogenous Earth and a non-rotating frame, he would describe a long, narrow eclipse around the Earth's center. His grip on the crossbar tightened convulsively. Of course—and unless friction retarded him too much, he would rise at the antipodal point to exactly the same level he had started from!

Wait, now—he had fallen from the floor of an underground chamber perhaps a hundred feet or so under the surface. . . . *Where was he going to come out?*

The moment the question occurred to him, he realized that it was of vital importance. He had entered the Earth near Lake Michigan, probably not far from the site of Chicago. If he went straight through the planet, he should come out somewhere in the Indian Ocean . . . and Chicago, he was sure, was several hundred feet above sea level!

Wait a moment . . . he was neglecting the rotation of the

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Earth; that would bring him out some distance westward of the antipodal point. How far depended on the period of his motion. . . . Call the radius of the Earth four thousand miles—about twenty million feet, for convenience. Gravity at the surface of the Earth, thirty-two feet per second per second. The square root of twenty million over thirty-two would be two hundred and fifty times the square root of ten . . . times pi . . . about twenty-five hundred seconds. Call it forty-two minutes. He ran through the calculation once more, found no error.

Very well, in eighty-four minutes, if he was right, he would be emerging from the far side of the planet. In the meantime, the rotation of the Earth would have brought his exit point about twenty-one degrees westward. . . . It was all right: that would still be in the ocean.

He took a deep breath. At least he would come *out*, not cycle inside the Earth until his momentum was used up. If his calculations were right—

How long had he been falling?

Cursing himself, he fumbled for his wristwatch. The dial was not luminous, but with a nail-file from his pocket he pried up the crystal, felt the hands with his fingertips. They indicated about ten minutes after nine. He had been falling for what seemed half an hour or more, but was probably less than five minutes. Assume, then, that he had begun his fall at 9:05 by this watch. The time it showed was local California time as of 2002 A.D.—curious to think of this mechanism still faithfully keeping track of the minutes now buried thousands of years in the past . . . but that did not matter.

At 10:29, he should emerge. If friction was a negligible factor, and he could not assume otherwise, then he would rise to a height of two or three hundred feet above the ocean . . . too high. He felt himself begin to sweat, as he realized that it would be necessary to chance falling back through the Earth—all the way through to the Western hemisphere, then back again, hoping that in those two additional passages, friction would bring him out at a level from which he could hope to fall safely.

Luckily, there was plenty of room in the ocean. Two more passages would bring him westward only forty-odd degrees. . . .

A feeling of discomfort drew his attention. He was uneasy: what had he been neglecting?

Friction: what if it were *not* negligible? For that matter, what about the interior heat of the Earth?

He was to pass near the center of the core, which was thought to be at about four *thousand* degrees Centigrade. . . .

Something was wrong. He

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reached out quickly, touched the hollow curve of the force-shell. It was neither warm nor cool to his senses. But he had already been falling . . . he felt the hands of the watch again . . . more than six minutes . . . *t*-squared, call it a hundred thirty thousand, times one-half the acceleration—two million feet, or something close to *four hundred miles.*

While part of his mind tried to grasp that, another part went on coldly calculating.

Temperature of the Earth's crust increased with depth, by about thirty degrees Centigrade every kilometer. And the shell he was in was transparent to visible light. Therefore . . .

He was through the crust, falling through the mantle.

He should have passed the red-heat stage long ago; by now he should be well into the white. And yet—

He touched the shell again. It was still neither hot nor cold. The darkness was unbroken.

Doubt struck him. Was he really falling? Suppose he was simply hanging here, suspended, without gravity . . . drifting, like a disembodied spirit, forever under the Earth?

He gripped the crossbar fiercely. The Universe obeyed certain laws, among these were the mutual attraction of material bodies and the equivalence of gravity and inertia. His senses told him that he was falling, and in this case it happened to be true—he *was* falling.

He touched the hands of the watch once more. They seemed hardly to have moved. He held the watch to his ear to listen for the whirr of the motor, then swore at himself impatiently. Of course the watch was running: it was his own perception of time that was at fault.

If he only had a light. . . . He would be seeing what no man had ever seen, the rocks of the deep mantle. In a few minutes he would be passing through the rim of the outer core, into that curious region where nickel-iron was compressed into a liquid. . . .

The watch again. The minute hand had moved, just perceptibly. Falling into this dark emptiness, Naismith could not help thinking again of lost spirits, wandering forever under the Earth. The Greeks had imagined a Hell like that; the Egyptians, too. A phrase from some chance reading came back to him: "the chthonic ourobouros."

He shuddered, and gripped the crossbar hard. *I am a man, not a ghost.*

He wondered if what he was experiencing had ever happened before: if any other living soul had made this incredible plunge. Such a man, failing to reach the surface again, swinging back and forth, thousands of times . . . until eventually his lifeless body

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came to rest at the center of the Earth.

What would have happened then, when the machine's power ran out? A gigantic explosion, probably violent enough to cause vulcanism all over the planet, perhaps even shift the balance of the continents. . . . Therefore it had probably never happened.

But suppose the power had *never* run out? Then what was left of the man must be still hanging there . . . or perhaps a cluster of corpses, each in his shell of force. . . .

Time passed. In the darkness and silence, Naismith found himself becoming intensely aware of his physical substance—his body's attitude, the partly flexed limbs, the sense of half-perceived processes going on inside him. What a curious and almost incredible thing it was, after all, to be a living man!

For four years he had believed himself to be Gordon Naismith. Then he had been told that this identity was a mask, that in reality he was a member of a different race, from a world twenty thousand years in the future. . . . But this identity was no more real to him than the other.

What was the truth? Where had he really come from, and what was the goal to which he felt himself so irresistibly driven?

Blurred, illusory shapes swam before his eyes in the darkness. He blinked irritably, then closed his eyes, but the shapes remained. He felt himself growing drowsy.

He came awake with a start, realizing that time had passed. He felt the hands of the watch. It was nine-thirty. Twenty-five minutes had gone by. But—

Naismith clutched the crossbar hard, as the icy shock struck him. In twenty-two minutes, he should have reached the center of the Earth. Surely, at that depth, there would be some rise in temperature in the capsule!

He reached out, touched the shell. It was just perceptibly warm.

He deliberately let five minutes go by, then touched the shell again. It was definitely warmer.

Was there a delay factor in the capsule's transmission of heat? Or had he somehow taken longer than twenty-two minutes to reach the center? But that was impossible.

Again he waited five minutes before he touched the shell. This time there was no mistake: it was hot.

After a moment, even the air in the capsule began to seem unpleasantly warm and heavy. Naismith found he was sweating; his clothes began to stick to him.

After five minutes more, it was not necessary to touch the wall again. It was glowing dull red.

Two minutes dragged by. The shell brightened through the red, into the orange, yellow, then white.

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Naismith was in agony. Even with his eyes tight shut, the glare and heat were unendurable. He was being burnt alive.

He buried his face in his arms, sobbing for breath. The heat pressed in relentlessly upon him from all sides; he could feel it like a heavy weight on his clothing. Now he could smell his hair beginning to crisp and smolder.

The metal framework grew too hot to touch. Naismith retreated from it as far as he could, touching it only with the soles of his feet; but to do so was to draw nearer to the white-hot shell.

He groaned aloud.

It seemed to him, after a movement, that the heat and glare had abated a little. He opened his eyes warily. It was true: the shell had turned from white to orange. As he watched, it faded slowly into the red.

Naismith breathed in a great tortured gasp of relief. The crisis was over—he was going to live!

Time—he must notice the time. Ignoring the pain of his blistered skin, he felt for the hands of the watch. It was exactly ten forty-four.

His passage through Inferno had taken about fifteen minutes.

Ten forty-four—ninety-nine minutes from the beginning of his fall. Fifteen minutes ago, if his calculations had been correct, he should have emerged on the far side of the planet.

But he had just passed through a zone of heat that could only be the core!

The air in the capsule was growing cooler by the moment. The shell faded from dull red into hot darkness again. A few minutes later, Naismith dared to touch it; it was hot, but bearable.

Naismith felt totally bewildered. The period of his transit through the Earth *had* to be approximately eighty-four minutes, no matter from what height he began his fall. Could his watch be running too slowly? Was time in the capsule moving at a rate different from that of time outside?

As the fall continued in darkness, Naismith grew aware of both hunger and thirst. He had been penned up here for only about an hour and three-quarters, and that ought to be well within his tolerance; but how long was this going on? How long could he last?

Once more, by an effort of will, he calmed his mind. The shell steadily cooled; otherwise no change was perceptible.

If he assumed a lag in the capsule's absorption and re-radiation of heat, Naismith drowsily thought, then it could be supposed that he had reached the mid-point of his orbit in just about twice the predicted time. That would imply that there *was* a difference of time-rate inside the capsule, or else that some other factor had been reduced for unknown reasons. . . .

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For a moment he allowed himself to speculate on what he would do to the two aliens, if by some incredible chance he came out of this alive and met them again; but he cut off the thought. He felt himself drifting again into sleep, and abandoned himself to it willingly.

He snapped back to awareness with a start. How long had he been dozing?

He felt the watch. It was 11:35. He had been in free fall for two and a half hours.

Tension began to build in him again. Unless his understanding of the situation was simply, grossly wrong, then the zone of heat he had passed *must* have been the core of the Earth; and his period must be about twice what he had originally calculated. But why?

Time dragged. It was 11:40; then 11:47; then 11:50. Naismith waited tensely. Eleven fifty-two. Now if ever—

One moment he was still in utter bleakness. The next, stars bloomed out beneath him, a galaxy of them, blindingly brilliant in their half-glove of night. Above him was a dark orb that occluded the other half of the sky; it was drifting away as he watched.

Naismith blinked up at it in incomprehending wonder for a moment, until he realized that it was the night side of the Earth—that he had burst out of it feet-foremost.

His breath caught, and tears came to his eyes. He was *out*, out in the free air at last! He made an instinctive attempt to squirm around right-side-to, but gave it up immediately; that did not matter.

What did matter, he realized with sudden alarm, was that he was rising too high! The wrinkled, starlit face of the water was drawing away overhead—five hundred feet, a thousand, with no sign of slowing down.

The time had been too long; his speed was too great.

Coming down, Naismith realized with horror, he would be going much too fast to dare turn off the machine. . . .

He would have to go all the way through, past that inferno of heat—at least once, perhaps twice. He was grimly sure that he could not survive even one more passage.

The globe above him continued to recede. Now it was concave, a gigantic silver-lit bowl: now it turned convex. The sky beneath changed from blue-black to purple, to ebony. The stars shone with a crueler sharpness.

Veils of cloud whisked by and receded, dwindling. How was it possible that he should be rising so far? He must be nearly into the stratosphere.

Now his speed was diminishing. He hung fixed in space for an instant, then saw the Earth creeping nearer again.

On the whole broad, overhang-

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ing curve of the ocean, there was not one light, not a ship. He ascent had taken perhaps a minute and a half; in the same length of time he must plunge back into the sea.

Naismith stared at the immense globe as it swelled toward him. There must be some explanation! It was out of the question for a falling body to come up ten or fifteen miles higher than the point it had started from. . . . Unless —

Suddenly Naismith remembered the instant of his fall, and the seeming nightmare slowness of it, while he fought to escape the shell of the force-field he was in.

Make this assumption: That the relation of the machine to the normal physical universe was such that its gravitational interactions were reduced . . . that it fell, say, with half or a quarter the normal velocity.

He ran through the calculations quickly, with growing excitement. Substituting one-quarter gave him a figure of one hundred seventy minutes, which was almost exactly right.

There was an apparent violation here either of the conservation of energy or the principle of equivalence, but never mind that now . . . The consequence was that during his fall, he would tend to swing out away from the Sun, being less attracted to that body than the Earth was. The center of his orbit would be displaced a few miles, just enough to account for this rise. . . .

The globe of the Earth was rushing toward him. Naismith watched it grimly, thinking that the next time he approached the surface it would be somewhere in the Pacific, about eighty-four degrees west of Lake Michigan. Then eighty-four minutes back again; this time he would come out somewhere near the 63rd meridian, still in the Indian Ocean.

His best chance, he thought distantly, was to make two more crossings after that. The first one would bring him up in the North Pacific, his highest point a hundred feet or so underwater. But the second should bring him out some hundreds of miles off the Cape of Good Hope, and it would then be shortly before dawn.

Then the Sun would be perpendicular to his line of motion, and the displacement would be horizontal, not vertical—he would rise only five hundred feet or so above the water; if he were then alive, he could turn off the machine just above the surface, and easily survive his fall into the ocean.

Then it would be a matter of luck; but at least he would have stacked the cards in his own favor. It would be daylight; he would be in well-traveled waters. . . .

If the war had not destroyed all life on Earth. . . .

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If there were still any ships on the oceans. . . .

Now the dark surface was hurtling down at express-train speed. Naismith involuntarily braced himself, even though he knew there would be no sense of contact. He saw a whorl of bluish light just above him, expanding, rushing down. His eyes widened; he had just time to gasp, then something struck him a murderous blow.

The universe wheeled majestically around him; there was pain deep in his head. The stars slowly darkened and went out.

He was aware of having been unconscious, of a pain in his head, and of a wordless anxiety that had driven him up out of sleep.

He opened his eyes.

He was looking up into a gulf of blue sky, dotted with clouds. Hardness pressed against his back; the air he breathed was cool and pure. Something dry and flexible brushed his cheek as he turned his head; vague yellowish rod-shaped moved across his vision. He sucked in a breath, rolled over and sat up.

He was on the ground, with grass shoulder-high all around him. A few feet away, on the trampled grass, lay a small blued-steel machine.

Naismith stared at it in frozen surprise for an instant, before he realized it was not the same one the aliens had used: the shape was similar, but not identical.

He reached for it, and found himself held back, although he could neither see nor feel any obstacle. Incredulous, he put out his full strength, straining until the blood roared in his ears; but he could not force his body an inch closer to the machine.

After a moment he gave it up, and cautiously got to his feet. He felt no restraint, and was able to stand; but when he tried to take a step toward the machine, the same impalpable barrier held him back.

He straightened again, looking out over the sea of grass. At first he saw only the rolling yellow waves, with an occasional green treetop in the distance, and a line of misty hills along the horizon. Then he became aware of movement.

A few hundred yards away across the plain, a human form was moving slowly through the grass. It was a girl, the upper part of her body either nude or lightly clothed; her legs and hips were hidden by the grass. She was walking with leisurely grace, halting occasionally, with her face turned up to the sun. He could not make out her features, but something in the lines and the motion of her body made him think she was young.

She had not noticed him. Naismith glanced again at the machine on the ground, then

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crouched out of sight and once more began a desperate effort to approach it. He found that he could walk in a circle around the machine, but could never come any nearer. He dug his feet in and pushed, with some idea of forcing the machine to move ahead of him, but did not succeed.

He stopped, gasping for breath, and looked over the tops of the grasses again. The girl was much closer. This time she saw him.

Naismith stood up and waited.

The girl walked unhurriedly toward him. Her skin was tanned, her hair coppery, shining in the light. She was dressed, or half dressed, in bits of contoured metal and fabric that clung to her body here and there, in a pattern more esthetic than functional. Her eyes were narrowed as she walked, as if she were aware of nothing but the caress of sun and air on her body.

She waited until she was only a few yards away before she spoke. "Awake already?" she said. The language she used was BoDen.

Naismith did not reply. Seen so near at hand, the girl had a startling, provocative beauty. Her skin was satiny, as if covered by an almost invisible sheer tissue—spiderweb-stuff that ended, without a visible border, at the edges of her lips and eyes. The red-violet of her lips might have been natural or artificial. Her eyes were pale green, fringed with dark lashes, startling against her brown face.

She was watching him with an amused expression. "Well, don't stand there—back away."

Naismith did not move. "Who are you—what is this place?"

"Earth, of course. Now back off so that I can get in."

Naismith glanced down at the machine, then back at the girl. "What if I don't?"

"I'll leave you here until you get hungry.

Naismith shrugged, backed off a few steps into the tall grass. The girl waited, then darted forward to the machine. She sat down on the ground beside it, folding her legs neatly, and looked up at him with a mocking smile. "All right, you can come back."

Naismith looked at her, then stared around at the grassy plain, peaceful and silent under the sky.

Absently he let his fingers trail through the dry, bearded grasses.

Far off, the tiny dot of a bird launched itself from one of the isolated treetops; he followed it across the sky until it alighted again.

"This is a beautiful spot," he said.

Her laughter made him turn. "Like to see what it's really like?" she said. She tossed something toward him. "Here."

Naismith's hand went up automatically to bat the thing away; at the last moment he changed his mind, plucked it out of the air.

It was a shaped blue grip of some smooth, waxy substance.

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When his hand closed around it, a disk of dark color glowed into being just above it.

He stared at the thing in perplexity for a moment before he realized that he was looking *through* the disk, at a three-dimensional scene beyond. He turned the grip this way and that, swung it around, and discovered that the view through the disk corresponded with the landscape around him —horizon, hills, the plain itself were all there, but all changed.

Grass and trees were gone; instead, there was raw earth and rock—blackened, cratered and barren under a starred purple sky. The sun blazed overhead—not the ordinary ball of light, but a monstrous thing with flames spreading high from either side. Naismith lowered the disk, puzzled.

"What is that—another time line?" he asked.

"I told you," she said looking up at him serenely. "That is what is *really* here. Everything you see is only a clever illusion." She indicated the landscape around them. "Earth is a dead planet now—destroyed by wars. You could not even breathe here, if you were not protected by this machine."

Naismith frowned, and put out a hand to touch the nearest clump of grass. The dry stems, the bearded tips, were real to his fingers. He pulled up a few, wadded them in his palm, watched them fall.

"I don't believe you," he said flatly. "Who would do such a thing?"

"They say Zugs did it," she answered indifferently. "The proof is that only human beings see any of this—a camera will not photograph it, and the illusion will not pass through that viewer. Give it back."

After a moment's hesitation, Naismith tossed the grip to her. The disk winked out as it left his hand, winked on again as she caught it. She glanced through it, said with a trace of bitterness, "All dust and stone," and put it away in her silver belt.

"Then why were you walking out there?" Naismith asked curiously.

She shrugged her bare shoulders. "It's beautiful," she said. "Why shouldn't I enjoy it, just because it's an illusion?" She gazed up at him. "Well, get in."

Naismith stepped closer, watching as she picked up the machine. "Where are you taking me?"

Without replying, she touched the controls of the machine. A faint jolt came, and they were enclosed in a transparent bubble, through which the landscape shone spectral blue. Almost at once, without any feeling of motion, the earth dropped away underneath, the sky began to darken.

Naismith leaned forward slightly, found that the same barrier kept him from approaching the girl. She smiled up at him mock-

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ingly, and lit a green cigarette with jeweled fingers that trembled slightly. "Sit down, Shefth."

Naismith obeyed slowly, staring at her. "I remember now," he said. "I saw something blue coming up, then—"

She nodded, blowing a jet of greenish smoke. "I didn't dare take a chance with you," she said. "I hit you with a force rod as I pulled you in. Then I thought I might as well wait till you woke up, so I went forward a few thousand years, and landed down there." She moistened her lips. "You're strong," she said. "By all the rules, you should have been unconscious for at least another twenty minutes. Anyway, I had time to put a mind helmet on you and read all your little secrets."

Naismith felt his body tensing. "What secrets?"

"I know them *all*," she said, wagging her head wisely. "All about California, and the two Uglies you called Lall and Churan." She laughed. "And what they wanted you to do."

Naismith stared at her, eyes narrowed. "Do you speak English?" he asked abruptly.

She did not respond.

"Do you know that you are a dirty little slut?" he asked in the same even tone.

Her eyes blazed at him. Her lips pulled away from her teeth, and for an instant Naismith felt a chill of alarm. Then it was gone.

"I won't kill you now," she whispered in English. "That would be too easy. When I kill you, it will be slowly and painfully, to teach you not to speak that way to Liss-Yani."

Naismith caught his breath, then pointed a finger at her. "Now I know you," he said. "It was your voice, that night, when I saw the Zug. You said 'Kill it' in just the same tone. You sent that —vision, whatever it was. Why?"

She blinked at him. "Aren't you afraid?"

"Why should I be? You said you're not going to kill me now."

"And later?"

"Later, maybe I'll be afraid."

"I wonder," she said, licking her moist violet lips. She stubbed the cigarette abruptly into a hole in the floor, and it vanished. "What's your name?" she asked.

"Gordon Naismith."

"Not that. Your real name, what is it?"

"I don't remember," said Naismith.

She looked at him thoughtfully. "And you don't remember anything about the City, or the Death Collars, or Thera-Yani?"

"No."

She sighed. "I wish I could believe you. Come here and kiss me." She tilted up her face and sat waiting, hands on the control box.

After a surprised instant, Naismith slid toward her. The invisi-

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ble barrier halted him, then seemed to soften; it melted away until his face approached hers; but when he tried to extend his arms, they were stopped in midair.

"Well, come on," she said, half-closing her eyes.

Naismith, half annoyed, half intrigued, leaned forward and kissed her. Her lips were soft, hot and moist; they parted under his at once, and her soft tongue probed into his mouth.

After a few moments, she lay back and pushed him away.

"Is that your best effort?" she asked. "Go on, sit down." She plucked another green cigarette out of the floor and lit it. "Well, I never heard of a Shefth that could kiss."

Nettled, he asked, "Then why did you suggest it?"

"I wanted to see what you would do. A real Shefth would not kiss a Yani." She cocked her head at him. "Actually, it was not *too* bad."

Nasmith stared at her in surprise for a moment, then laughed. A scrap of knowledge floated up to the surface of his mind. The Yani . . . that was the entertainers' caste. No, of course a Shefth would not kiss one; and she had all the stigmata—the coppery skin and hair, green eyes, slender, tapering fingers. . . .

"I thought you knew all my secrets," he said.

"Some of the traces are not clear," she said absently, stroking the machine under her hand.

"How did you know where to find me?" he asked in BoDen. "Were you watching, all that time I was with Lall and Churan?"

"Of course. Uglies are very stupid. They thought you would simply drop into the Earth and never come out again. But I knew better. I computed your orbit, and—" She shrugged. "Then it was easy."

Her fingers were slowly stroking one of the buttons on the control box she held on the floor. Naismith said, "You know, of course, that it was on your account the Uglies decided they couldn't trust me?"

"I know."

"Then why can't *you* trust me?" he demanded. "Either I'm on one side or the other."

"Because there's something wrong about you," she said, and blew green smoke at him. "I felt it when I kissed you, and I am never mistaken. I don't know what it is—you seem to be just what you say, a Shefth who has lost his memory. But there is . . . something. Oh, well—forget it." She touched the control box, then leaned back against the wall. "Are you hungry? Thirsty?"

At once Naismith was again acutely aware of both needs. Watching him, the girl reached behind her to the wall, withdrew a cup of foaming white liquid and a brownish, solid cake. She broke

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the cake in half, offered him the cup and one piece of the brownish stuff.

Naismith accepted both, but cautiously watched the girl nibble at the cake before he tried it himself. It was chewy and rich-tasting, something like figs. He sipped the liquid, found it agreeably astringent.

The girl laughed suddenly.

"What is it?" Naismith demanded, lowering the cup.

"You were so easy," she said. "How do you know I did not put ten-day poison in the fruit or wine?"

Naismith stared at her. "Did you?"

"Maybe." Her eyes glittered with amusement. "If I did, you can only get the antidote from me. So if I ask you a favor, later on, you *may* want to do it."

"What sort of a favor?" Naismith asked. He glanced at the food, laid it down.

"Go on, eat! If there *is* poison in it, you've had enough already—the rest won't make any difference."

Naismith looked at her grimly, then nodded and took another bite of the cake. "What sort of a favor?" he repeated.

"I don't know," she said indifferently. "Things were becoming a little difficult when I left. The Barrier is so close now. It doesn't hurt to have friends at a time like that."

In spite of himself, Naismith smiled. "Is that your idea of a friend—someone who had to do what you say because you've poisoned him?"

"Please don't be dull," she said, with a *moue* of distaste. "After all, we are going to be in this traveler together for another ten minutes."

"Then what happens?"

"I hand you over to the Circle," she said without interest. She thrust out one hand, looking complacently at the nascrous violet of her nails. "Do you like this color?"

"It's very pretty. The Circle—what do they want from me?"

"They think you can kill the Zug. They are terribly worried about it."

"Then that part was true."

"About the Zug? Oh, yes. This is total access clothing, did you know that?" She touched the curved and ornamented plaques that clung to her body one after another. Each one winked briefly out of existence, revealing an arm, a breast with a rather startling violet nipple, a hip, a thigh.

Nasmith felt an intense, momentary interest in that tender-looking flesh, but he put it aside. "Which faction is ascendant in the Circle now?" he demanded.

The girl frowned. "What a dull thing you are! You Shefthi, actually . . ." She yawned once more and stretched back against the curved blue-mist wall. "I think I shall rest." Her eyes closed.

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Naismith gazed at her in annoyance, but before he could speak, something new in the sky caught his attention. It was a mass of spectral blue gloves, hanging motionless at eye level.

"What *is* that?" Naismith demanded.

The girl opened her eyes briefly. "The City," she said.

At first her words seemed irrelevant. Then a shock went through Naismith's body. "Do you mean *that* is the City?" he demanded.

She sat up, eyes wide open. "What's wrong with you?"

Naismith did not reply. His pseudo-memories of the City were all of gigantic rooms, corridors, floating shapes, crowds of people.

Now that he looked for it, the knowledge was there: but it had never once occurred to him that the City was not on Earth.

His inner agitation increased. *Here* was the danger, not in Liss-Yani's petulant threats.

His knowledge of essential things was incomplete, badly organized, not readily available. What other blunders might be not make at some crucial moment? . . . And how much longer did he have to prepare himself?

Outside, the huge, complex shape ponderously revolved as they drew nearer. A bull's-eye pattern rolled into view, centered itself in the mass, grew steadily larger. The inner circle yawned and swallowed them. They were inside.

CHAPTER EIGHT

THROUGH THE WALLS OF THE time vehicle, Naismith found himself looking into a huge globular room—a hollow, pale-green sphere, with regular markings at intervals on its surface, in which floated a confusing array of objects.

Liss-Yani smiled at him sidelong, her hand on the control box. "Are you ready?"

He stared back at her, said nothing.

Smiling, she did something to the controls. The time vehicle winked out of being.

At the same instant, something dark and incredibly swift flapped toward them, enclosing them. Naismith flung up his arms in instinctive defense, then relaxed. Somewhere a bell was ringing.

"What is this?"

"A precaution," she said, enjoying his reaction. "What if we had been Uglies?"

Through the dark transparency around them, Naismith could dimly perceive motion in the great globe. Angular machines drifted nearer, lenses glowing sullen red, like coals in the heart of a fire. A little above them, another shape was moving: Naismith realized suddenly that it was a man. Something was wrong with the legs, but he could make out pipestem arms, a head, the glint of eyes staring.

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Abruptly the bell stopped; the darkness winked out. They were floating in the middle of the green sphere, surrounded by machines in whose lenses the red glow was dying. Nearer, the man Naismith had seen before was floating toward them, body at an angle to theirs, hands gripping his forearms, like a Mandarin. He was dressed in a fantastic, puffed and ruffled garment of yellow and white stripes, the top a short-sleeved singlet, the lower part a tube covering both legs and closed at the bottom with a yellow bow. His face was lean and gnomish, at once anguished and ironic. His eyes glittered; his wide mouth twitched. "You got him, I see," he said.

"Yes, here he is, Prell."

"Is he dangerous?"

The girl turned slowly in mid-air and gazed at Naismith. "I'm not sure," she said thoughtfully.

"We'd better keep the automatics on him, for the time being. Later they'll give him a collar." Prell turned in the air, spoke a single, harsh word.

Out of the clutter of objects hanging in the vast space, one drifted nearer: it was a miniature white sarcophagus, with a design painted on it in blue and yellow. The drawing was a crude sketch of a young girl with yellow hair, eyes closed, lips demurely smiling. Her hands were crossed over her breast.

"Tell the Highborn," said Prell, "the attempt was successful. We have the Shefth."

The sarcophagus clicked, hummed, drifted away again.

"Probably it will take a while to get her attention," said Prell. "Do you want to look at the work, in the meantime?"

"Yes, all right," said the girl indifferently. The two of them turned, drifted rapidly away from Naismith. After a moment, already tiny in the distance, they paused and looked back, with comical expressions of surprise on their faces.

"I forgot," said Prell's distant voice; "he doesn't have a director. Wait a moment." He spoke the harsh word again; another machine drifted toward him. This one was box-shaped, ornamented with red and green arabesques on a black ground. "A director for that man," said Prell, pointing.

The box dipped slightly, turned, and came rocketing down at Naismith. At the last moment it slowed, came to a halt facing him a yard away.

"For my information sir," said a musical voice from the box, "what is that man's name?"

"Naismith," said Naismith, looking at it curiously.

"Excuse me, sir, but that is not a catalogued name," said the box politely.

The voices of Prell and the girl murmured together a moment; then Prell said, "We'll get him a

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name presently. For now, just call him 'that man.' "

"Thank you, sir," said the box. A hopper in its center slowly opened; out floated a narrow, flexible band of some cream-colored substance.

"Put it on your wrist," called the girl. Naismith did so, and the stuff curled around his wrist as if half-alive, clung to itself and seemed to melt together; the seam disappeared.

"Now point in the direction you want to go and just tense your wrist slightly," her voice went on.

Naismith did as he was told, and found the vast green sphere rotating slowly around him, while certain distant clumps of machines drifted nearer. When Prell and the girl came into view again, he pointed toward them, and this time managed to keep them centered. He lowered his arm, came to rest a few feet away.

"You'll get used to it," said Liss-Yani. "Come on!"

She and Prell moved off again, but came to a halt almost immediately. Naismith jockeyed up beside them. Prell was moving some small glittering object across the vacant air before him: suddenly there was a shimmer, a crackle, and a great round sheet of silvery reflection came into being.

Prell touched it again; the disk turned transparent, and they were looking into another room, darker and even more enormous than the one they were in. In the vast space, myriads of tiny shapes were moving: some were human, some were the symmetrical forms of machines —boxes, sarcophagi, vase-shapes. As Naismith's vision adjusted to the scene, he began to make out serried ranks of dark objects, not visibly connected to one another, among which the human and robot forms came and went.

Prell reached out again, and the scene appeared to drift nearer. They were looking down upon one of the thousands of ranked machines, over which a gnomish young man in a dress like Prell's was hovering.

"This is the Barrier control network," the girl's voice explained. "They've been working on it for five years. It's almost finished."

"Is this an actual entranceway into that room," Naismith asked, fumbling for words, "or a—a viewscreen?"

Prell looked at him curiously. "What is the difference?"

Naismith realized, in confusion, that there was no difference, in the question as he had asked it: the two phrases, in BoDen, were almost identical.

While he was still thinking dazedly of the implications of this, Prell reached out again.

"Would you like to see what they're doing?" he asked. Without waiting for a reply, he gestured once more with the shining object.

Part of the scene before them

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seemed to expand. Where one of the floating machines had been, there was a dim lattice of crystals, growing more shadowy and insubstantial as it swelled; then darkness; then a dazzle of faint prismatic light—tiny complexes in a vast three-dimensional array, growing steadily bigger. . . .

Naismith caught his breath. He realized that he was seeing the very molecules that made up the substance of the machines being built in the next chamber.

"This is why it takes so long," Prell said, rubbing his forearms nervously. He grimaced. "Every channel has to be built up molecule by molecule, under rigid control. Like to see it closer?"

The magnification increased. In luminous darkness, Naismith saw molecules scattered like tiny planets. A moving dot of light appeared, slowly traced a mathematical arc across the blackness. Other arcs of light sprang out from it, like ribs from a spinal column; slowly, the dots that were molecules drifted across to take position upon them.

"Is that direct vision, or a display of some kind?" Naismith demanded, fascinated.

"It's a mathematical analogue," Prell answered. "Just a toy, really." His mouth twitched; he scrubbed at his wrists as if in pain.

"It's beautiful," said Naismith.

Prell shot him a startled glance then seemed to go into a revery.

The sarcophagus robot drifted up, and discreetly, "The Highborn has received your message. She asks you to send that man to the social room."

"All right," said Prell. "Liss-Yani, you might as well take him over. Come back later, I want to talk to you."

"Yes," she said. Turning, she took Naismith's arm. "This way."

Naismith's body was trembling in alarm. The thought came: *Prell is dangerous. He knows what I am.*

Brain working furiously, he allowed the girl to lead him away from Prell. *His reactions are slow—he is still thinking about it. But in another few seconds . . .*

The girl came to a halt in midair; awkwardly, Naismith stabilized himself beside her. Before them, faintly, he could make out a silvery circle in the air. Liss-Yani reached out, touched it with a glittering object, as Prell had done before. The ten-foot circle quivered, rippled: and they were looking into a gigantic room full of color and motion. "Come," said the girl, pulling him through.

On the opposite side, Naismith brought himself to a halt, looking back. He could still see the scientist, hovering in thought beside one of his machines. The girl's arm reached past him, touched the circle, and the scene blanked out.

Naismith whirled. "Teach me how to operate these doorways," he said angrily.

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"It's perfectly easy," she said, staring at him. "You just touch them with the opener and think about where you want to go. There'll be plenty of time for that —come on."

"Give it to me," he said, holding his hand. After a moment she shrugged, put a smooth silvery object into his palm. It felt like plastic rather than metal; it was an elongated ovoid, fitting naturally into his hand so that the blunt tip of it projected.

Naismith reached out, touched the circle. The view sprang into being again. Prell had turned slightly, was massaging his forearms with his hands; there was an anxious expression on his face.

"One moment," said Naismith. He propelled himself through the opening, turned, touching it with the silvery object again; it blanked out. Instantly Naismith hurled himself at Prell.

The scientist turned, with a startled expression, as Naismith hurtled up. Nasmith seized the man by the front of his robe, yanked Prell toward him. Terror sprang into the little man's eyes.

"What was my mistake?" Naismith demanded. "Tell me!" He tightened his grip.

"Beautiful," the little man gasped. His mouth opened and closed like a fish's, making no sound, until Naismith impatiently shook him. "You're not—a Shefth . . . They have no—esthetic responses. . . ." His face contorted with sudden malevolence. "I know what you are—help!—" His lungs filled, he opened his mouth to shout.

Naismith gripped his frail body with one arm, put the other forearm against his chin, pressed. There was a gurgling sound as the man's wind was cut off; then a dry, loud snap. The body sagged.

As Naismith turned, one of the ubiquitous machines drifted nearer. "For my information, sir," it said musically, "what has happened to Master Prell?"

"Uglies attacked him," said Naismith at random, moving away. "They appeared suddenly, killed Prell, then vanished."

"The automatic weapons did not fire," said the machine.

"They were out of order," Naismith said. He glanced around; none of the other floating robots seemed to have noticed anything. Could he disable this one, if he had to? Was it necessary?

"For my information, sir," said the robot, "which were out of order, the automatic weapons or the Uglies?"

"The weapons," Naismith told it, staring at the intricate design on the front of the box.

"Thank you, sir."

"For my information," Naismith said suddenly, "tell me, are you intelligent?"

"I am intelligent. I have a machine intelligence of plus forty."

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Naismith frowned. "That was not what I wanted to know. Are you—are you conscious?"

"I am not conscious, sir."

"Have you volition?"

"I have no volition, sir."

"Thank you."

"Thank you, sir." The machine dipped politely, turned, drifted away.

On the other side of the doorway, the girl was waiting. Naismith slipped through, closed the circle quickly behind him.

"What took you so long?" she demanded.

"I had trouble finding the doorway again," he said. Breathing hard, he stared around at the crowded immensity behind her. The room was globular, and so vast that he could not estimate its extent. In a pale greenish haze, what seemed to be thousands of floating bodies were ranked: some coming and going, in a slow circling movement, others fixed. In a given group, large or small, all the heads would be pointing one way and the bodies spaced about equally, like fish in a school. Some were right-side up from his point of view, others upside down, others at all angles. It gave him a vertiginous feeling.

"Well, come on," said the girl.

Naismith hesitated. Things were moving too fast; he needed time to think. It was incredible that he had just committed a murder. . . . This was not like the other time, when he had blanked out and discovered later that he had killed Wells. This time, something in his own brain had said, *Prell knows what I am.* For the moment, he had known exactly what he had to do and why. Now it was fading. . . . *In God's name,* he thought suddenly, *what kind of a monster am I?*

He was aware that the girl had taken his hand, was tugging him off toward the center of the sphere. After a moment Naismith cooperated, using his own director. They passed a little shoal of brightly-dressed people, then another. The room was full of the tiny sarcophagus-shaped robots, too, Naismith noticed. Then, with a shock, he realized that many of the floating bodies were those of green-skinned Uglies.

They were carrying things, moving this way and that on errands, their faces expressionless. Some of the brightly-dressed people were self-propelled, like himself and Liss-Yani; but others were being moved from one place to another by Uglies or by robots. All of them wore garments like Prell's that seemed to hide stunted or atrophied legs.

Naismith and the girl rounded a huge, complex spray-shape of glittering golden material, through the branches of which tiny fish-shaped robots swam. On the further side, past a throng of floating people, Naismith caught sight of an-

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other huge object, this one as hideous as the other was beautiful.

It was the shape of a femal Ugly, magnified to the size of a ten-story building. Gigantic and grotesque, it loomed over the glittering throng like a human body surrounded by mayflies. Its arms were secured behind its back; its skin was pierced here and there by long needles, from which drops of dark blood were slowly oozing. Through the echoing talk and laughter, Naismith suddenly heard a hoarse bawling sound—a groan, immensely amplified, that seemed to come from where the Ugly's head should be. The talk died away for a moment, then there was a scattering of laughter, and the hum of conversation began again.

Naismith felt sickened. "What's that?" he demanded.

"A solid," the girl answered indifferently. "That's one of the rebel Uglies they captured. They made a big solid of her so everyone can watch. Look over there."

Naismith turned his head, saw a girl of Liss-Yani's caste entwined in a sexual embrace with a slender, muscular man. There was a little ring of spectators around them, and some languid applause.

"No, not them," the girl said impatiently. "Look farther up."

Naismith did so, and saw nothing of interest except still another woman of the entertainer class—dressed, this one, in long gossamer robes—drifting across the room with an entourage of young men and women. Her face was noble and sad; she looked straight ahead, without expression.

"That's Thera-Yani," said the girl in a muted voice. "Isn't she wonderful!"

"I don't see it," Naismith said. "Why wonderful?"

"She was the best-loved Yani in the city until last month, when the new mutations were released and the fashion changed. Now there is nothing left for her. She took twenty-day poison, and she is saying her farewells to the City."

Naismith snorted, unimpressed. Up ahead, a green-skinned female servant was pushing a tremendously fat old woman across the air by the small of her back. The Ugly, Naismith noticed, was wearing a bright metal collar around her neck; he now recalled seeing similar collars on other greenskins.

A fragment of speech drifted back: "But why must *all* the Uglies die, Mistress? Haven't I always been good, haven't I always—"

"Oh, don't be tiresome, Menda. I explained to you before, I can't do anything about it. It's something to do with *science* . . ."

Now they were approaching the center of the enormous room, where the largest and most tightly packed mass of people floated. The shrill hum of conversation grew louder. Naismith's nerves prickled; the closeness of all these people was subtly unpleasant.

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Up ahead, a raucous female voice was screaming, like an articulate parrot's: the words were not distinguishable. Naismith and the girl moved nearer, threading their way patiently through the press, sometimes horizontally, sometimes in the vertical plane.

At last Naismith could make out the screaming woman. She hung in the middle of a little group of gaudily dressed people. She was hugely, obscenely fat in her puffed and ornamented garment of white and scarlet. When she swung around, Naismith could see her body quake like a jelly inside the fabric. Her face was sallow and lined, the eyes bright with madness. ". . . come in here and tell me, who do you think you are, be silent and listen, I tell you I will not have such disrespect, why don't you observe the rules, don't talk back to me, I tell you, listen. . . ."

"Highborn, if you please," said a fat man in brown, with ruffles around his worried pink-baby face.

". . . never in three hundred years have I been treated like this, be quiet, Truglen, I wasn't speaking to you, how can I bear these constant interruptions, Regg! Regg! where is the creature, Regg!"

"Yes, Highborn," said a green-skinned man, floating up beside her.

"Give me a pickup, can't you see the state I'm in?"

"Highborn," said another man, almost as fat as the first, "try to be calm. You may want to wait a little before you have another of those, recall that you've already had ten this period. . . ."

"Don't tell me how many I've had, how dare you!" She choked apoplectically, took something the greenskin was holding out, swallowed it and glared, speechless for a moment. The servant handed her a tube leading to a flask of reddish fluid, and she sucked at it, her old face hollowing deeply and her mad eyes bulging.

Liss-Yani spoke to a robot, which glided forward and said politely, "Highborn, here is the Shefth you sent for."

Her head swiveled; she glared, spat out the drinking tube. "And high time, too!" Why can't I get any *obedience* any more, why do you all make things so difficult for me, do you want to kill me, is that it? Come forward, you, what's your name?"

Unwillingly, Naismith floated toward her. "Naismith," he told her.

"That's not a name, are you making a joke of me? What is his name, I say, what is this Shefth's name?"

"He does not know his name, Highborn," said the robot. "He is to be referred to as 'that man.' "

"Be quiet," screamed the fat woman. "You, are you a Shefth?"

"As you see, Highborn," said

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Naismith. A globe of watchers, most of them hugely fat, was beginning to form around them.

"Impertinence! When have I ever had to bear such insults! Do you know how to kill a Zug, answer me directly, and mind your manners!"

"I don't know," said Naismith.

"He is the only Shefth we have, Highborn," said the babypink fat man, bending near.

"Well, I don't like him! Go back and get another one at once, do you hear me, take this one away, I won't have him, I won't!"

"Highborn, there is not enough time—" said the fat man.

"Time, time, don't we manufacture time, how can you be so cruel and thoughtless, don't contradict me, I say, go and get another!"

Two or three of the men around the fat woman exchanged glances.

"Well, what's wrong with you all, are you deaf or paralyzed, why can't I get a simple order obeyed in mind's name, oh, why are you all . . ."

A chime sounded nearby; heads turned. "One moment," said the pink man anxiously. "Highborn, the message."

The woman fell silent, gaping and blinking. There was a movement in the globe of people as the pink man drifted back. Now Naismith could see a yellow box-shaped machine with a lighted face, suspended in a transparent globe. The chime came again. The pink man tilted himself nearer, staring at the face of the machine. Naismith could see words forming in threads of white light, one, then a gap, two more, another gap . . . .

" 'Danger . . . Zug alive . . . send Shefth.' " The pink man paused, then straightened. He sighed. "That's all. Almost the same as last time."

"Well, it's clear enough, isn't it?" the woman screamed. "Danger, send Shefth—to kill the Zug, that's clear, isn't it, what more do you want?"

"But the words left *out*, Highborn," the pink man said despairingly.

"Never mind, you're only trying to confuse me! They want a Shefth to kill the Zug—*we* want a Shefth, up there in the future, that's clear, isn't it? Well, then, what's the matter?"

There was motion in the globe of watchers; a hawk-nosed man, leaner than the rest, came plunging through and stopped before the fat woman. Behind was a gnome in brown and red stripes, one of the scientists. "Highborn, this man says Prell has been killed in the workrooms!"

"Prell? Killed? Who killed him? Who is Prell?"

"The time laboratory director, Highborn! His spine was broken, not more than five minutes ago."

"There is the man who did it!"

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blurted the gnome suddenly, pointing his finger at Naismith. Heads turned; there was agitated motion in the group.

"He did it? Then kill him, quickly, quickly, you idiots, before he does it to somebody else! What are you waiting for, kill him!" The woman grew yellow-faced and shrunken; her little eyes glistened with fear.

"One moment," said the hawk-faced man. "Autos—that man." Three of the dark, red-lensed machines drifted toward Naismith, taking up positions around him.

"Kill him!" squalled the woman.

"That can be done in a moment, after we ask one or two questions," said Hawkface. He turned to Naismith. "Don't make any sudden motion, or the guns will fire. Did you kill Prell?"

"No," said Naismith. He caught sight of Liss-Yani hovering in the background.

"Who did, then?"

"Uglies," said Naismith. "They came into view, killed him, disappeared again."

"You saw this?"

"Yes."

"Why didn't you speak of it?"

"No one gave me an opportunity."

The man's lips quirked in a half-smile. "Where is that robot?" he asked, turning.

The box drifted up to him; Naismith recognized the red and green arabesques. "Yes, sir?"

"Is this the man who told you Uglies had killed Prell?"

"Yes, sir."

"Did you see it happen?"

"No, sir."

"Did the automatics fire, or did the alarm sound?"

"No, sir. That man said they were out of order, sir."

"Were they?"

"No, sir."

The hawk-faced man turned to Naismith again. "That seems conclusive. Have you anything else to say?"

"Kill him!" screamed the woman again. "Kill him! Kill him!"

"What about the Zug, Highborn?" ventured the pink man.

"The Zug, I don't care about the Zug . . ."

"But who will kill it, if *we* kill the Shefth?"

"Get another one," she stormed. "Don't bother me with these details, I've told you a million times, I don't want to be bothered, can't you understand that, I only want to be left *alone*—"

"One moment," said Hawkface. He gestured toward the nearest of the machines. Blackness flapped suddenly toward Naismith.

For a heart-freezing instant, he thought the gun had fired; then he realized he had been enclosed by another of the dark globes. Through it he could hear their voices, but could not make out the words.

Time dragged unendurably.

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Then, suddenly, the little group broke up; the dark globe vanished.

"Well, that's settled," said Hawkface agreeably. "You're to have a reprieve, Shefth. We're going to let you kill a Zug—here, on this side of the Barrier. If you do, well and good. If not—" He shrugged, turned to the gnome beside him.

"Give him some equipment and get the gate ready," he said. "A few of you go along and watch—you, you and you. Anyone else want to go? All right, four vehicles, then. See to it."

As he turned away, there was a babble of voices around Naismith. the gnome had darted away and disappeared; other bright forms were clustering nearer. Naismith caught sight of Liss-Yani, and of a smooth-limbed, athletic man who might have been her brother. Two gorgeous fat men in candy stripes of violet and pink drifted up, chattering excitedly to each other.

With a look of sullen hostility, the gnome reappeared carrying a small bundle of equipment. "This way."

As the group followed him, he edged closer to Naismith and muttered, "You animal, you're going to be clawed up and eaten alive inside half an hour. I'll be watching, and I'll laugh!"

Naismith felt chilled. The holiday mood of the people around him, their laughter and bright faces, suggested that they were about to enjoy some amusing spectacle. *Clawed up and eaten alive* . . . Would that amuse them? A cold fury came to drive back his fear. Somehow, somehow, he would cheat them of that pleasure.

Darting ahead, the gnome checked at one of the mirror disks. He touched it briefly. The disk cleared: they were looking into a tiny, blue-walled room, on the far wall of which glimmered another silvery disk.

"Go ahead, get in," said the gnome impatiently.

Naismith entered the chamber slowly, glancing around him. The gnome handed him a clutter of harness and equipment. "Put these on."

Naismith examined the objects. There was a pistol-like weapon in a holster, a helmet with a curious forward-jutting spike, and a complex webwork of plastic straps with metal insets.

"Here, let me show you," said the man who resembled Liss-Yani, coming forward. "Rab-Yani is my name. You may call me Rab." He took the harness from Naismith's hands, deftly looped it around his torso, arms and legs.

"What's this for—to protect me from the Zug?" Naismith demanded.

Rab-Yani gave him an odd look. "It gives some momentary protection," he said. "Nothing short of a force field will protect you against a Zug, however. What this does

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principally is to seal off wounds and prevent shock. In that way, you can go on fighting for another few seconds before you lose consciousness."

Naismith watched grimly as the entertainer passed the holster strap around his chest. The projecting gun-butt looked familiar; he grasped it, drew it half out of the holster.

Yes, it was the same—the massive, powerful grip and barrel.

"That's your flamer," said Rab-Yani. "It projects a spear of intense flames which will cut through even a Zug's hide, if you are close enough. It is good for three shots before it gecomes too hot to hold."

Naismith thought this over in silence. Behind him, the excited voices continued; then the sound faded, and suddenly a ghostly blue bubble floated past him; in it were the two fat men, staring back at him with onion eyes. The bubble passed through the wall ahead and disappeared.

"Now the helmet," said Rab-Yani, fitting it onto Naismith's head. "This contact goes here, on your cheekbone. Clench your jaw."

Naismith did so, and at once a faintly shimmering disk appeared, hanging in front of his face from the spike of the helmet.

"That's for illusions," Rab-Yani said. "The Zug may appear in some confusing shape, but look through that, and you will be able to see its real aspect."

Naismith relaxed his jaw; the disk winked out.

"Well, we're ready," the entertainer said. Two more ghostly bubbles floated past. In one of them crouched the gnome, who gave Naismith a malevolent glance before he disappeared.

Turning, Naismith saw Rab join Liss-Yani: he floated close to her, she touched the controls of the machine she held, and a blue bubble formed around them.

The bubble floated nearer: Rab-Yani gestured toward the gateway in the wall ahead, and Naismith saw that it was now open, revealing blue-violet depths.

Feeling very much alone, he took a deep breath and floated through.

The gigantic, deserted corridors of the Old City had a dream-like familiarity to Naismith: again and again he recognized places he had encountered before, in the machine memory the aliens had given him: but they were all changed, empty, shadowed. Here was a great concourse, on whose elaborate, fluted central stem Naismith remembered seeing a colorful crowd perched, fluttering, coming and going like a flock of tropical birds: now it was an echoing vault.

Later, they drifted along the tops of hundreds of ranked cylindrical shells, each twenty feet wide, in whose purple depths vague, indecipherable shapes could be made out. "The Shefthi growth

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cells," Rab commented, drifting close in his bubble. "You came out of one of those . . . do you remember?"

Naismith shook his head. Part of his mind was aware of the blue bubbles, with their clattering occupants, drifting insubstantially around, behind, above him. Another part was listening to what Rab-Yani said. The rest was fiercely alert for danger.

"What about you—did you come out of one of those, too?" he asked abstractedly.

Floating beside Rab in the bubble, Liss-Yani laughed. "No—then he would have been a Shefth! The gravity in those cells is set at one and seven tenths Earth normal. He would have too many muscles!" She put her arm around Rab with casual affection.

The gnome's bubble darted suddenly forward, disappeared through the solid wall.

"And you abandoned all this, just to get away from the Zugs?" Naismith asked. "Why?"

"When they mutated, they became very strong and very intelligent. The Old City is full of tunnels and passages, too many ever to flush them all out. That's why you Shefti were created. We never needed a warrior caste before—not for thousands of years."

"If they're so intelligent, why not deal with them?"

Rab gave him a surprised look. "The Zugs are predatory upon man," he said slowly. "They eat our flesh, and plant their eggs in our bodies. There are men at this moment, hidden away down here, paralyzed, while Zug larvae grow inside them. Yes, we could deal with the Zugs, but only on their terms. Do you think you would like that, Shefth?"

Naismith said stubbornly, "But why try to kill them with weapons like this?" He touched the gun at his chest. "You could be safe inside one of those bubbles, shooting them down with rods of force. They wouldn't have a chance."

Rab exchanged glances with the girl beside him, then looked around. The other bubbles had spread out; neither was within earshot.

"Listen to me, Shefth," he said in a low voice. "Are you really as ignorant of the Zugs as you pretend?"

"I don't remember anything about them," Naismith said flatly.

"Then you are probably doomed, because Pendell has gone ahead to find one, and it will not be hard. You must realize this: these creatures are the fiercest mankillers in the history of the universe: but they are not mindless animals. If we hunt them with superior weapons, they stay in hiding. That is why you have no armor that will protect you for more than an instant, and no gun more powerful than that one. If you were trained, there would be one

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chance in two of success; as it is, you will have only a few seconds to kill the Zug before it kills you. It is incredibly fast and agile. It —"

He broke off suddenly as the gnome's bubble reappeared ahead. The expression on the little man's face was one of malicious triumph.

"Quickly," said Liss-Yani in an urgent voice.

"You must hold your fire until it is almost upon you," Rab finished tensely. "It will dodge your first flame and come at you from a different direction. Your only chance is to anticipate that direction, and—"

A scattered chorus of shouts broke out from the bubbles behind them. Tense, hand on his gun, Naismith stared around.

What he saw was nothing more frightening than a small bald man in white robes, who had just entered the corridor from a narrow opening ahead. His pale blue eyes stared across at Naismith without expression; then he turned and was gone.

"Now the Zug will certainly come," Rab muttered. "That was a scout."

"A man?" Naismith asked incredulously. "There are human beings serving them?"

"I *told* you," Rab began, then stopped abruptly. From the opening ahead something else had emerged into view.

Naismith's hand slapped his chest instinctively, came up with the cool metal of the gun, even as his mind registered the incongruity of what he was seeing. The thing that was now hurtling toward him with incredible speed, winged, glittering, was no Zug—it was an angel.

Naismith had an impression of blazing eyes, a manlike face of inhuman beauty, powerful arms outstretched.

In that frozen moment, he was aware of the passengers in the bubbles, all facing around, bright-eyed, intent, like spectators at a boxing match. He saw the gnome's bubble begin to move. Then his jaw clenched, and the view-disk sprang into being in front of his face. The angel disappeared; in its place was a many-legged monster, red-eyed, clawed and hideous.

"Zug!" shouted the voices around him. Then the beast was upon him.

Naismith fired. A spear of flame shot out of the pistol, blue-bright, twenty feet long. The monster wheeled in midair, seemed to vanish.

Naismith whirled desperately, knowing as he brought his gun around that he had no chance. He saw the gnome hanging close behind him in his blue bubble, almost close enough to touch.

There was no time for conscious thought: he simply *knew*. The gun fired in his hand: the lance of

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flame shot out, straight through the gnome's insubstantial body.

A wailing chorus went up. The gnome, unharmed, whirled to look behind him. Then he began to howl with fury.

Drifting in the air, its huge body still writhing, armored tail lashing, the Zug lay with its massive head cut half from its body, and a trail of violet-red blood streaming from the wound.

The spectators in their bubbles began to close in, shouting with excitement. Rab and Liss-Yani were hugging each other.

Naismith felt himself begin to tremble. It was over; he was still alive.

"How did you do it? How did you ever do it?" shouted one of the candy-striped fat men, edging nearer, cheeks shining with pleasure.

"Pendell was too close," Naismith said with an effort. "He came up behind me, knowing the Zug would use him for cover." He took a deep breath, and smiled at the gnome. "Thank you," he said.

Pendell flinched as if he had been struck; his face writhed. As laughter burst out around him, he turned and darted away.

The viewing disk in front of Naismith's helmet had winked out again. Curious, he turned to look at the Zug: and where the monster had been a moment before, an angel lay slain.

The pale head, half severed, was noble and beautiful; the eyes stared blindly. The great limbs tensed spasmodically; the sharp tail curled up and then was still.

Chapter Nine

Naismith was dreaming. Part of his mind knew that his body was afloat, curled up in midair in the green-walled cubicle; another part was drifting through dream images, memories, distorted and menacing—the pale Zug, more horrible than in life, with fangs and gleaming eyes, looming toward him, while he hung paralyzed, unable to reach for the gun . . .

Naismith groaned, trying to awaken. The image faded. Now he was wandering through the deserted corridors of the Old City, somehow confused and blurred together with the corridors of the spaceship. The greenish faces of Lall and Churan floated into view; they were dead, their dull eyes turned up.

And a part of his mind, separate from the other two, was watching in fascinated horror as a door trembled, about to open.

The crack widened. In the darkness, something stirred, came into view . . .

Naismith awoke, with his own hoarse cry echoing in his ears.

His clothing was sweat-sodden; his head ached, and he was trem-

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bling all over. A shout echoed in the distance, outside the cubicle. For a moment he wondered if he were still dreaming: then the sound came again. It was a shout of alarm, of fear. Other voices answered it; then came a rolling, rumbling avalanche of sound—an explosion!

Naismith gathered himself and shot to the doorway, looked out. A man of the entertainer caste, armed and helmeted, face intent, went by down the corridor.

"What is happening?" Naismith called after him, but the man was gone.

On the way to the social room, he passed two groups of hurrying automatic guns, their red lenses aglow; the second was accompanied by a robot, which did not respond to his questions. Somewhere, very distant, sounded the rumble of another explosion.

The huge globular hall was filled with motion. People were rushing in all directions, interfering with each other, often colliding. Robots and automatic guns were everywhere. There were a few green-skinned servants, all with the metal collars around their necks, all with wild, stunned expressions. He passed one male green-skin who was arguing or pleading with a stout man in a viewscreen on which a tiny picture was visible, shifted a few yards away from the servant, not looking at him; the servant followed, still talking, and so they moved jerkily across the hall. Naismith drifted after them and listened.

". . . to kill me like this," the greenskin was saying in a hoarse, indistinct voice. "Tell them not to do it, please tell them—"

"Leave me alone," muttered the man, gazing into his viewscreen. He moved away again. Again the servant followed.

"Don't let them kill me, that's all I ask," he said thickly. "I'll do anything, I'll be good, I'll never be slow when you call again—just please tell them—"

Without speaking or looking up, the man moved away. The servant fell silent and gazed after him. His heavy face turned blank; then he shuddered, his face darkened, his muddy eyes bulged. With an inarticulate sound, he launched himself through the air, arms outstretched.

He never reached the man in white. In mid-air, his head suddenly dropped, his body went limp. He floated, turning slowly, past the man in white, who did not even glance up.

From the back of the metal collar around the dead greenskin's neck, a thin trickle of blood crept into sight.

Naismith turned, went on his way. Here and there in the huge space, he saw other drifting, greenskinned bodies. One or two were being towed away by sarcoph-

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agus robots; the rest were being ignored.

He noticed, too, that the man in white was not the only one with a viewscreen. Almost every member of the ruling caste had one; and where the people clustered thickly, he discovered, they were watching larger screens that hung in the city.

Naismith moved on. Movement flowed around him, voices called in excitement; once he saw an entertainer with a bloody face being carried past by a robot. But it was all dreamlike, distant.

What was wrong with him? He felt a tension in himself that was slowly, steadily increasing, and it seemed to him that it had been building continuously all this while, ever since that first day in the multiple classroom in Los Angeles. Every step, from the death of Ramsdell, his imprisonment, then Wells' murder . . . traveling forward with the two aliens, the buried spaceship, all the way to the City . . . that tension had been remorselessly growing inside him. He felt as if his body were being physically distended by it, till he must burst if he could not find relief. His forehead was sweating; there was a tremor in his arms. Something inside him . . . that buried mystery, the thing that had taken over in the psychiatrist's office, and again in Prell's laboratory . . . the black secret of his being. . . .

He felt as if the door were about to open, and as if its opening would destroy him.

"Shefth, what's the matter with you?"

He looked up. It was a fat little man in brown and green stripes, gazing at him with anxious eyes. The shrill voice went on, "Don't you know the Highborn has been asking for you? Where have you been? Come along, hurry!"

Naismith followed toward the center of the hall, where the largest cluster was located. As they made their way slowly through the close-packed, moving bodies, the little man panted back at him, "Hurry, hurry—she wants you there before it happens!"

"Before what happens?" Naismith asked dully. The pressure inside him was so great that he could scarcely breathe. His head ached, his hands were cold.

"The Barrier!" the little man shrilled. "They are going to put up the Barrier any minute! Hurry!"

Squeezing his way through the inner ring, Naismith came into view of the fat woman and her entourage, gathered around a row of big circular screens. One showed a view of the time laboratory workrooms, with a gnome in the foreground—Pendell, or another like him. The fat woman was screaming hysterically, "Isn't it ready yet? How soon, then, how soon?"

"A few minutes, Highborn."

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"Why can't you be more specific? A few minutes, a few minutes —how many?"

"By my estimate, not more than five," said the gnome. His face was strained; he was giving part of his attention to the aristarch, part to a control box he held in his hands.

"But I want to know *exactly,*" the fat woman shrilled. Her eyes were mad in her yellow face. "Go forward in time and find out, as I asked you to before!"

The hawk-faced man drifted up and said, "That would pinch out the loop, Highborn. It is contrary to the basic laws of time."

"Pinch out the loop, pinch out the loop, that's all I hear!" the old woman screamed. "I'm tired of it, tired of it! How many minutes now?"

"Perhaps three," said the gnome, tight-lipped.

"Highborn, the trap worked!" said a grime-streaked entertainer, darting up, his face jubilant. "The Uglies were destroyed—we have their time vehicle!"

"Good!" said the fat woman, looking momentarily pleased. "How many does that leave?"

The men beside her turned toward one of the floating screens, in which nothing showed but a scattering of greenish points of light. As Naismith watched, a few winked out, here and there.

The nearest man touched the edge of the screen, peered at the numbers that appeared at the bottom. "Seven hundred fifty-three, Highborn," he said.

"Good! And how many Zugs?"

The group's attention turned to another, similar screen, in which the dots of light glowed sullen red. "The same as before, Highborn," said a man. "Five hundred eighty-seven."

The old woman snorted with indignation. "Still so many?" she said. "Why, I say why?"

"The Barrier will kill them, Highborn," Hawknose reminded her, gently.

"Then *how long* is it till the Barrier?" she demanded.

"Less than one minute," said the gnome. Drops of sweat stood on his brow.

In his mounting distress, it seemed to Naismith that the whole great gathering had turned sordid and ugly, the colors dulled; even the air he breathed smelled overperfumed and fetid. This was a sorry climax to the drama of the human race, he thought—this pampered oligarchy of piggish little men and women, selfish, ignorant and stupid—less worthy to survive than the entertainers who amused them, or even the neurasthenic technicians who kept their city functioning. And now there would be no threat to their dominion, for ever and ever . . . That, somehow, was the most intolerable idea of all.

"Ready!" the gnome snapped. His eyes gleamed with excitement

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as he glanced around. Behind him in the darkness, Naismith could see the other technicians floating beside their machines, all with faces upturned toward Pendell.

"Now!" said the gnome harshly, and his fingers touched the control box.

Naismith felt an instant's violent and inexplicable alarm. Something seemed to compress his lungs; a band of pain clamped around his forehead.

Shouts of excitement echoed in his ears. All across the vast space, men and women in gaudy costumes were swirling about each other in rapid motion.

"How many greenskins left?" the old woman cried. "How many, I say how many?"

"None, Highborn!" a man called triumphantly. In the screen, every green light had winked out.

Glancing across the hall, Naismith saw many drifting green-skinned corpses, but not one living servant.

"And how many Zugs?" called the old woman.

A hush fell. In the second screen, one ruddy light was still burning.

"One," said the nearest man reluctantly. "One Zug left alive, Highborn."

"Fool!" she screamed at Pendell. "Fool, fool! How could you be so careless? Why didn't your Barrier kill them all?"

"I don't know, Highborn," the gnome said. His face twitched; he blinked, rubbed his thin arms with his hands. "In theory it is impossible, but—"

"But there it is!" she shouted. "Well, what are you going to do? How can we be safe if there's a Zug still alive? Where is that Shefth? I say where is he?"

Several hands thrust Naismith forward. "Here, Highborn."

"Well?" she demanded, whirling, her mad eyes staring into his. "Well? Are you going to kill it? What are you waiting for?"

Naismith tried to speak, and failed. His body was on fire with pain; he could barely see.

"What's the matter with him?" the old woman squalled. "I say what's the matter?"

Hands probed his body. Dimly he heard the hawknosed man's voice: "Are you ill?"

Naismith managed to nod.

"Look at him, just look!" the old woman shouted. "What good is he now? Put a death collar on him and be done with it!"

"But the Zug, Highborn!" called an anxious voice. "Who will kill the Zug?"

"Put the collar on him, I say!" the woman's hysterical voice railed on. "I can't stand the sight of him. Put the collar on him—kill him, kill him!"

Naismith felt a moment of intolerable tension, then a sudden release. He was afloat in darknesss, safe, protected.

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The woman's shout seemed to echo from a distance. "Well, why don't you put the collar on?"

A pause. Another voice answered: "Highborn, this man is dead."

In the darkness, the being who knew himself as Naismith awakened. Memory returned. He knew where he was, and what he was.

He was alive, though the rapidly cooling body in which he lay was not. He could remember, now, all the things it had been necessary for "Naismith" to forget.

He remembered killing Wells. Earlier, he remembered standing beside the wreckage of a bomber, and coolly selecting the dogtags of one of its crewmen, the one who most resembled him in age and height: dogtags that read "NAISMITH, GORDON."

He remembered stripping the body, carrying it on his shoulders to a ravine, throwing it in and covering it with boulders. . . .

Earlier still, he remembered his first grublike awareness—warmth, protection, motion. He had put out pseudoganglions, first cautiously, then with gathering sureness and skill. He had linked his own nervous system with that of his host, a Shefthi warrior returning belatedly from a Zug hunt.

Then he could see, feel, hear, with his host's human senses.

He was inside the Shefth; he *was* the Shefth. . . .

With grim satisfaction, he realized that the game was over, the long-maturing plan had been successful. His knowledge of his own kind came only from human sources, but logic alone made it certain that he represented his species; counter-blow to the humans' Barrier. Encysted in a human body, his mind radiations mingled with those of a human brain, he alone of all his kind could pass through that Barrier. *He* was the one surviving Zug: he himself was the monster he had been sent to kill.

Now, as his strength returned, he was aware of motion. The host body was being towed off out of the way, probably by a robot. He waited, tensely, until the motion was arrested and the sounds of voices diminished. It was evident that he had been taken out of the great hall, into some smaller chamber.

He waited again, to make sure, but there was no further movement.

Ever since the host body died, he had been injecting dessicants into it to harden it and make it brittle along the center line of the torso. Now he stretched himself, applied pressure: and the body split. Light came into his prison.

For the first time, he saw with his own eyes; and he was dazzled. The world was so much more brilliant and beautiful than human senses could convey!

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Now he saw that he was floating in a small, bare cubicle, among the corpses of dozens of greenskins.

Carefully he drew himself out of the hollow he had made in the body of his host. He felt his limbs and wings stretching in the air, hardening.

A fresh babble of voices came from outside the cubicle. He gripped the empty host-body and drew it quickly to the back of the room, hiding it behind the other floating bodies. A moment later, there was a commotion: a body crashed heavily into the room, followed by another. The first was babbling in a thin, terrified voice, "No, no, no . . ."

He risked a glance. A robot, as he watched, was affiixing a death collar to the scrawny neck of a technician. Its task done, the robot turned and floated away. It was carrying a cluster of the metal collars.

The technician, left behind, tugged vainly at his collar. Tears glittered in the little man's eyes. With a choked sound, after a moment, he turned and followed the robot.

The being who called himself Naismith waited grimly. Now that the Shefthi and the greenskins were gone, the City's rulers were evidently making sure of the technicians—perhaps of the entertainers as well. However that might be, Naismith waited because he had to.

During these first few minutes, he was vulnerable and weak, easy prey for any determined man with a weapon.

At intervals, cautiously, he tested his wings. The curved ribs were hardening, the membranes drying. He flexed his grasping members, watching the armored segments slide in their casings. Strength and alertness began to flow into his body. Soon—

His thoughts broke off abruptly as another robot entered the chamber. Naismith felt a tug, and saw the greenskinned bodies around him bob and wheel, as they followed the robot out into the corridor.

Naismith went along, caught in the same web of force. Outside, he saw that his small group of bodies was being joined to a much larger one. All the greenskinned corpses, evidently, were being brought together for disposal. Naismith could have broken free of the weak attraction that held him, but he ran less chance of detection in staying where he was. Besides, if his idea of his whereabouts was correct, the procession was headed where he wanted to go.

Other groups of bodies were added as they went, but always at the head of the procession, and it was not until they crossed a large hall that anyone noticed Naismith.

"Look—a Zug, isn't it?" an effete voice remarked. "How frightening, even dead as it is!"

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"Yes, and imagine that we aren't even seeing its true form," another voice replied. The sound faded as the procession moved on. "If we had a viewer to look at it with—" A pause. "But, Willot, what is a dead Zug doing *here, in the New City?*"

Naismith waited no longer. With a surge of his wings, he was out of the cluster of bodies, darting straight across the hall toward the nearest doorway.

Shouts echoed behind him as he gathered speed. Ahead, a little group of gorgeously dressed fat men blundered squarely into his path. He burst through them like a rocket, sending them flying with bruised limbs and broken bones.

Then he was at the doorway, thinking his destination. He dove through, into the workrooms of the technicians.

Here everything was confusion —machines unattended and adrift, unidentifiable instruments floating in clusters. A few technicians were visible, most of them wearing the Death Collars. Of the few who were still without them, one was being pursued by a robot.

The dim memories of his last sleep were now clear. Naismith remembered stealing out of the cubicle, going to the workrooms, capturing and subduing one of the technicians. He had put a mind helmet on the little man, had forced out of him the one secret he wanted to know.

Now he headed directly for one small doorway, half-hidden behind floating machines. He opened it with a thought, dived in.

There was a gnome before him in the narrow, blind tube. He had the rear panel already open, and was fingering the controls. He turned a snarling face as Naismith entered; then his eyes widened, his face paled.

Naismith killed him with one blow, pushed his body aside, and turned his attention to the control board.

Here, carefully concealed and guarded, was the central control system for all the automatic devices that made life possible in the City—air generators, synthesizers, automatic weapons, robots.

Naismith examined the control disks carefully. Some had the death symbol on them, meaning their settings could not be altered without killing the operator—an underling would have to be sacrificed for each such adjustment. These were the controls for the force fields which made up the walls of the New City; the precaution was understandable.

Others, of a slightly different color, also bore the death symbol, but in these cases it was a bluff, and Naismith touched them without hesitation. He turned off all the automatic weapons in the City, neutralized the robots, and opened the gateways between the Old and New Cities: Then, work-

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ing more slowly, he opened the panel and altered the thought signals required to approach the control board. Now only he could make any further changes in its settings.

He was hungry, so he made a light snack from the food he found in the corridor. Then, at his leisure, he went back the way he had come and began the tour of the City.

Everywhere, the Lenlu Din gawked at him with pasty faces, all silent, all shaking. Those nearest the doorways fled in a panic when they saw him enter: the rest did not even try to escape, but only hung where they were, passive, staring.

He paused to examine his reflection in the silvery disk of a mirror. It was strange, and yet perfectly natural, to look at himself and see this pale, unearthly figure, with its blazing eyes in the inhuman mask of the face. He flexed his great arms, and the smaller grasping members; then the tail, watching the sharp sting emerge.

He moved on, giving new orders to the robots as he went. In the social room, he came upon a little group of fat men frantically at work upon an instrument he recognized.

They scattered as he approached, and he read the message they had been trying to send into the past: "DANGER—ONE ZUG ALIVE. DO NOT SEND SHEFTH." The machine was glowing, the message incomplete. He turned it off, and went on his way.

He was here, nothing they could do could alter that. That had been obvious from the beginning: but let them try.

The vast concourses and galleries of the New City absorbed his attention; he was beginning to catalogue the treasures of his new domain, a task that would occupy many months. Yet the silent throngs, the glittering color, the miles of records and information capsules, did not please him as they should. After a long time he realized what the trouble was. It was the phantom personality of the man, Naismith. It was oppressive, as if he were wearing an invisible overcoat. Irritably he tried to shrug it off, but it stayed.

Now that he was aware of it, the feeling was more annoying than ever. He stopped and floated still, appalled. Every thought, every feeling that Naismith had had during the months their minds were linked together was recorded in his brain. It was not merely that he remembered Naismith:—he *was* Naismith. He was a member of the race of conquerors; and he was also a man.

He made a violent mental effort to throw off that phantom mind, but the thing clung to him stubbornly, like the ghost of an amputated limb. It was no use

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telling himself that Naismith was dead. Naismith's ghost was in his mind—no, not even a ghost; his living personality.

He whirled in sudden anger, and the fat little people scattered around him. Were *these* the rulers of Earth's ultimate City, the inheritors of four hundred thousand years of human evolution? These puffed little parasites, selfish, neurotic and cruel?

Their race produced some great men, Naismith's voice said soberly in his mind.

There are none among these! he answered. Nor will they ever produce any, if they live a million years.

Not under your rule.

And if I had left them to themselves, what then—would they have done any better?

No, there is no hope for them, nor perhaps even for the technicians. But there is hope for the entertainers.

Pride stiffened his body. They are my property.

They are human beings.

In doubt and confusion, he turned to the nearest robot, a sarcophagus-shape with geometric figures inscribed in red on a gold and silver ground. "Tell me briefly, what is a human being?"

The robot whirred, hummed. "A human being," it said, "is a potentiality."

After a moment, he gestured. The robot drifted away.

The entertainers deserve their chance, Naismith's voice said.

No.

He turned as another robot floated up: he recognized it as one he had sent into the Old City on an errand.

"Lord, I found no Masters alive, but I have taken eggs from their bodies as you ordered. They are under the care of the technicians in the biological laboratories."

He made a sign of dismissal and the robot went away. He went on with his tour of inspection. Everywhere, the eyes of the little fat people stared at him in dull misery.

Woe to the vanquished, said a voice in his brain: was it his own, or Naismith's?

With a sense of panic, he discovered that he could not tell the difference. The two were one.

He was all triumph and mastery; yet he was all commiseration, all regret.

Give them their lives, and their chance, said the voice.

Where?

Where but on Earth?

Naismith hung frozen for a moment, remembering the sea of grass, under the cloud-dotted sky.

A little man in white drifted up. "Master, are there any orders?"

"Yes. Find me the entertainers Liss and Rab." As the man bobbed his head and darted off, Naismith beckoned the nearest robot. "Bring me a vehicle."

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Still, when the robot had gone, he hung in the air, oblivious to the color and movement around him, astonished by the purpose that was in his mind. Could a Zug feel this passion of mercy, and remain a Zug?

The robot came first with the control box, then the entertainers, looking frightened and desperate.

Naismith took the control box. "Come near, and don't be afraid," he said to the entertainers. "We are going to Earth."

"To Earth? I don't understand," said Liss-Yani.

"Are you going to exile us there?" Rab burst out. He turned to the girl. "Let him do it," he said fiercely. "It's better than staying here to be food for him."

Liss-Yani's face paled. After a moment, she stepped nearer, and Rab followed. Naismith touched the controls. The blue-tinted bubble of force sprang up around them; the hall drifted away. They passed through one partition, then another . . . then a third, and they were in space, under the cold majesty of the stars.

They stood on the grassy plain just at dawn, when the greenish-blue sky to eastward was lit with yellow fires along the horizon, and the sun bulged up red as a blood-orange above the mountains.

Naismith switched off the bubble. The two entertainers looked at him without expression, then turned and began to walk away through the wet grass. After a moment they linked hands.

"Wait," Naismith called after them. They turned. "How far does the influence of this machine extend?"

"About half a mile," the girl said dully.

"Then if I take it farther away than that—or, better, if I remove it in time—you will die?"

"You know we will."

"Then watch." Naismith touched the controls, forming the bubble. He depressed and rotated the time control gently.

The two silent figures vanished; the plain writhed, darkened, glowed with sunlight, darkened again. Touching it more gently, Naismith turned the control the other way. The same sequence unrolled in reverse, like a film strip run backward.

The two figures appeared once more, then a third—Naismith himself, wings busy as he hovered in air, his grasping members holding the machine.

Invisible in the bubble, he watched himself leave. He saw the two entertainers stiffen, saw them clutch each other. After a moment he saw them separate, open their eyes, look around in wonder.

Still he waited, until they dared to walk a few steps into the grass, calling to each other, breathing deep. Dawn was diffusing half the sky; across the plain, birdsong echoed.

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Naismith lowered the bubble, brought it into phase and turned it off. The two humans did not even see him.

"Liss—Rab!" he called.

They turned, with incredulous faces. "It didn't kill us!" said Liss-Yani. "Is this *real?*"

"It is real," he told her.

"But then—" she whispered, and fell silent.

"They said that you Zugs made the illusion," said Rab.

"They also told you we were hideous monsters," Naismith replied drily. "Which is easier—to make an illusion you can see with your own eyes, or to make one that can only be seen through a 'viewer'?"

They stared at him. "This is your true form?" Liss-Yani ventured.

"It is my only form."

"And all this is real?"

Naismith did not reply. They were a pretty pair, he was thinking, especially the female; it would be interesting to breed them and see—He stopped. Was that the Zug's thought, or the man's?

It was neither, he realized, but a blend . . . and how curious to think that this detached pleasure, half cool, half warm, was possible only to the mythological creature he had become. . . .

"But why would they do this?" Rab asked.

"Tell me, when you left the City on their errands, did you ever think of staying on Earth?"

"Yes, often," said Liss, her eyes glinting.

"Why didn't you do so?"

"If we had stayed in the past, that would have changed history, changed the City—so it was impossible—it would have pinched out the loop."

"And why didn't you settle *here,* in your own present?"

The two looked at each other. "Because they made us think it was a wasteland," Rab said.

Naismith inclined his head. "We will go back to the City now," he said. "You will tell the other entertainers, gather them all together. I will give you vehicles, tools, records, everything you need."

They came toward him slowly. "But why are you doing this?" Liss asked.

"You would not understand," said Naismith.

. . . In truth, he hardly understood himself. But as he moved through the glittering throng in the great hall, listening to the music and the voices, seeing the respectful looks on the faces of the Lenlu Din when they glanced his way, it seemed to Naismith that somehow, through accident and willfulness, he had woven himself precisely and symmetrically into the grand design.

Always, he thought, the universe tended to strike a balance between two excesses: long life

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and short, intelligence and mindlessness, mercy and cruelty. The tapestry unrolled, and there was never an end to it.

"Lord," said a robot, drifting up, "the last of the Lenlu Din are being processed now in the gold chamber. In one hour they will all have been treated, as you ordered."

Naismith dismissed it, and watched it float off among the idle pleasure-seekers. He was pleasantly hungry; in half an hour it would be time to eat. After all, this way was best. In the old days, a Zug would have leaped upon his victim and devoured it on the spot. Now . . .

A few hundred yards away, from the midst of a large group, he heard the screeching of the old woman, the Highborn, hysterical and angry as ever. Other voices were soothing her. All was normal, all was for the best in this best of worlds.

Naismith drifted over; the gaily dressed little people parted respectfully to let him through. Even the mad old woman interrupted her screeching to bob her head.

"Highborn," said Naismith, "have you forgotten that you are about to retire for extended meditation?"

"I am? Am I?" she said uncertainly. "When am I going?"

"Almost immediately," Naismith told her gently, and beckoned to a passing robot. "Show the Highborn to her chambers."

"But won't that be unpleasant?" she asked, letting herself be led away.

"You will not mind it at all," Naismith promised her, and floated off in another direction.

Three fat little men, arms linked, drifted across his path with respectful glances. To them, he was no monster, but a revered counsellor and guide. The absence of the entertainers did not strike them as odd: Drugged and hypnotized, they had forgotten there had ever been such a caste, or any other state of things.

They were cattle.

Was this mercy? Then a Zug could be merciful. Was it cruelty? Then there was cruelty in a man. . . .

The game, Naismith realized now, was not over. The pattern was still unfolding, in this small and unimportant corner of the universe of stars.

Here, in the closed world of the City, he tasted triumph—dominion was his. Yet it was good to know that down there on Earth, the human species was still free, still evolving in its pattern.

It was pleasant to think that in a thousand years, or ten thousand, Zug and Man might meet again, and this time blend their powers into something greater. It would take that long, or longer; Naismith and his kind could afford to wait.

For God is not born in a day. ◀

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Pettifogle discovered Allen Kim Lang in, of all camp places, the blood bank at Indiana University. "I've shaken hands with Harry Truman," said AKL, "submitted fuller biographical material than this to Dr. Alfred Kinsey, sold my first story a dozen years ago to PLANET (same magazine Bradbury began in: he's rather far ahead), drunk mild-and-bitter with Arthur C. Clarke in London's White Horse pub, and barely missed meeting Messrs. Davidson and Sturgeon at the Chicago SF Convention, which I visited with Holly Cantine (Hell of a good writer) on leave from a Peacenik encampment on Oak Street. I'm chief technician in the ARC blood program here," said Lang, holding up a test-tube to the light, "processing 20,000 liters (I prefer to ignore English mensuration outside of public house pints) of blood yearly. (BE A BLOOD-DONOR . . . Commercial.)" Pettifogle swallowed, turned green. "I spent four years in the Infantry and four in the Air Force, where I discovered and espoused pacifism. If you don't start WW III, I won't either. Middle name, Kim, is the gift of a Korean family; it's the commonest Korean name, and means gold. *All of this family, including the 17-year-old ROC youngest son, who learned to use a slide-rule without understanding the English in which I demonstrated it to him, are dead. Except me. My agent, splendid man, signs his name in Chinese. We Orientals are taking over. See Otto v. Bismark for details." Mr. Lang went on to explain the scientific basis for the fast-moving, stylistically-sparkling story below: whole blood is currently being stored in liquid nitrogen at c.—320° C; hypothermia is now a standard surgical procedure; and experiments with cooling rats indicates that it has no adverse effect on the ability to think. Pettifogle has not been altogether the same since . . . and perhaps, after reading this little goody from the gory crypts, you will not be, either.*

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THAW AND SERVE

by Allen Kim Lang

DOC WARNER'S BLOOD LUBRI-cated the handcuffs onto my wrists. A police-sergeant draped me in a sweated sheet to lead me from the bedroom where Mildred Warner crouched in a corner, screaming.

"McWha," his Honor said, "you've led busy life."

Indeed.

The years my contemporaries spent at basketball saw me at Bosky Knoll, an asylum where wolf-cub claws are blunted with Freudian snips. My talons proved tougher than my keepers' clippers. At fifteen, sated with cant and honey, I parolled myself across the chain-link fence and rode the Citrus Express into the city

Establishing my stake with the aid of a stocking filled with gravel, I entered the pharmaceutical field. Unlike a certain fool who, asked why he held up banks, explained: "Because that's where the money is," I had decided that wealth is most easily pried from the fists of the poor, whose grip is weak. Proffer a Kopyright Kure for Kancer, and the carriage-trade wrinkles its nose. But it clix on the brix.

My welcome to the inner chambers of the Full-Service Bank I favored was won with *qat,* an herb harvested in the sheikdoms of Yemen and unknown, until I introduced it, to our wholesomer clime. While fat-rumped lawmen slashed down groves of marijuana in the public parks, a weed benign as wine, Wolfman McWha pushed at schoolside soda-fountains a brand of tea habit-forming as sins against chastity; and I won for my industry at import the price of a harem of Yemen's only other market-worthy crop, to be disposed of through a consortium of used-flesh dealers in another hemisphere.

Competition was a bother until I discovered arguments developed in the Carribean from Prussian pilot-models. Distrusting dangerous electrical paraphernalia, I used above all other tools a rod of steel long as a man's forearm and of the diameter of his least external orifice; a device which served all commercial purposes from a mild reproof to the manufacture of a corpse mute to the canniest coroner's physician.

A carnivore in a world where gruel had become the native dish, I was too proud to hide my bris-

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tles under sheepskin. Had Slick McWha deigned to dole out dimes to starvlings (the Wicked's Mite) he'd never have been exiled into Paradise. What doomed me was the lack of wit to be a hypocrite.

The only revenge I had intended taking upon Doctor Warner was the seduction of his wife; however, to be brisk as surgery *ante* Morton, he surprised us in the consumation of his shame. I seized the nearest object sufficient to parry the doctor's violent walkingstick (a bookend; the Warners were a literate couple) and swung. He lay dead and she stood screaming.

In gyves, Slick McWha served Telstar's bouncy purpose. The camera showed the killer fenced in before the solemn bench, where a fat black bat twittered disclaimers to his sup of blood: "Ours is a civilization that no longer kills, but only cools." The sentence, then (C. U. my murderer's face, pan to my clenching fists):

"Kevin McWha, the servants of the State are directed to sequester you for

"TWO HUNDRED YEARS,

"at the end of which time, by the Grace of God and the Pace of Science, you will awake in a world prepared to deal with monsters healingly."

On the Stevie-set over the cash-register at your neighborhood tavern you might have seen, after the penultimate commercial, the next step in the McWoeful way of McWha; the Helium Chamber of the Criminal Crypts.

Insidious Fu Manchu, thou shouldst have lived this hour! *Vide*: silicone straps to hold the delinquent while the smoking vats of liquid gas are tilted over his limbs. The medusoid head-dress to lend a classic touch, together with junior lightnings that leap the cleavage of brass breasts. The victim, calling out details of his regretted turpitude as he's lowered into his tub of Time. . . .

That schtick's worn thin. The truth is this:

A bed. A nurselet, cozy in blue-striped blouse and starched white apron (and nymphettophageous Wolfman knows cozydom!) leans primly over dexter deltoid with two-cc. syringe and stainless needle. "This won't hurt a bit, Mister Son-of-Woe."

She stings. Two hundred years are gone.

No sleep, no chill from my two centuries' soak at 1° Absolute. Just a bee-sting that still smarts, a dozen decades after the dimpled bee's decayed.

The Future's machines wake me and pat me to shape A naked citizen, Tarzan, comes to walk me in the park. On his left biceps is strapped a silver disc. Anti-McWha device, I posit. "We know why you're with us, Kevin." Wry mouth. "Your dossier is foxed

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a bit, but we've read it."

Nudism is the style of these comely pedestrians; they've tamed the weather to make it bearable. Wolfman slavers, two centuries celibate, as a girls' gym-class prances past to the tennis-courts.

"No cities; we're beyond the need for efficiency." Milder than milk, which presupposes active glands, my cicerone smiles.

Wolfman smiles, too. *Six Trix Fix Hix* flix his inner pix. "No drug-addiction?" I ask.

"Goodness, no." The fink from the future frowns. "We do have something of a coffee-problem," he confesses.

Add another Black Battalion, thinx Slick McWha. Illicit Java. "No other vice?"

"Perhaps self-satisfaction," says the sweet meech.

No license, I, to peddle ennui. "You've got Cloud-Cuckoo-Land indeed," says cloud-dispelling, cuckoo-cuckolding, landgrabbing Slick McWha.

"We like it here."

"So do I . . . to visit," testifies the sheep-thief

"You can't go back." A lion, curry-combed to a comeliness no President's-daughter's-pony had in my day yet attained, stalks up to a nearby yew-tree, where he lies down with a lamb. Leo yawns. Lambkin, big-eyed as a peace-walker discovered in a Legion bar, feels her cud turn sour.

"What do you intend to do with me?" ask I, the devil's willingest advocate.

"We'll study you," my ribbon-clerk replies. "You'll do well to cooperate. We'll use force if need be."

"Shame!"

". . . to prevent, say, murder. Rape." Taut look.

"You remember the four-letter lyrics, but you've lost the four-letter lilt," I comment.

"You appear to think that civilized means soft," protests History's Minion. He sees a honeybee light on a golden flower and closes his eyes.

"The truth with this Future," I muse, "is that it's trimmed of testicularity. Fortunately, thanx to the magic of cryogenics (*Anything That Goes In Can Be Frozen; "Break the Law," You'll Freeze & Thaw,* etc.), your hormone-gap is about to be plugged." Dead to shame, Slick McWha voyeurs honeybee twiddling butt-up in buttercup, wondering, Do monsters on pulp-magazines seize macromastic Earthgirls to sup such innocent dew?

Virgil opens his eyes, pale blue like watered milk. "We want no snakeseed scattered here in Eden," he says. "In any case, our women wouldn't have you."

"Like Poland wouldn't have the SS," growls the Wolf. No response. The Future has no nasty Past.

I think then the thought uppermost in the mind of every fictive

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Sleeper Waking, the urgency to inspect the headlines that I've missed. "You're at peace?" I inquire.

"Of course," my dainty superman agrees, his mouth a butter-cooler. "Through antenatal conditioning, we've eliminated the birth-trauma. Since there's no poverty, there's no anxiety. Look there:" Twin teenaged darlings, Geminae, dusted with freckles like cinnamoned sweetcakes, stroll hand in hand past Wolf and Rabbit, nod golden heads and pass, not ceasing to sing together in voices like young violins. "The body is no longer the vessel of shame," Rabbit babbitts. "Our Ids are sanitary as our Superegos."

Wolfman licks his lips, tasting sugared cinnamon. "I spoke," I say, "not of you alone, gentle pewt; but of your world."

"Earth is no more a circle of blood-sprent sand," says my beefcake Fauntleroy. Then, like the handsome stranger in a ladies' magazine, he croons, "But let's talk now about you." He indicates two stone benches, dos-a-dos, cushioned with a moss velour. A little stream, fast-moving, runs to our right, fraying against the three stepping-stones. The air smells of cold water, of pine-needles and grass bruised by naked childfeet. I lust after an atavistic cigar. "It's my privilege to help you find your new career," the milksop says.

"My work was chosen in the dice-fall of my genes," I tell him. "I am, by gland-drive and by training, an entrepreneur."

"A thief," interprets my man from Intourist. "We've seen your dossier, remember?" He touches pinkies tip-to-tip, the top tip to his lips, a curate counting in his head the cucumber-sandwiches he requires for the Parsonage tea. "There's no business here for dope-peddlers," he says. "Nor do we, Kevin McWha, solicit the services of panders, cancer-quacks, or Big-Board bandits."

"A man from the past deserves subsidy," I suggest. "Like a Ming vase, he should be preserved as a national treasure."

"Ming vases of your pattern are commoner than milk-bottles," Mister Interlocutor tells me. "Do you forget the crime statistics of your unkempt day? How your courts,- more merciful to contemporaries than to descendants, chilled the mischief-makers and shipped you ahead like frozen fish, to be thawed out stinking in our gentler age?"

"The Judge assured me you'd have new techniques," I point out. "He said you'd have a medicine for misdemeanants."

"We have a rod," answers Exquisite, tracing a steely line in the air, "two hand-breadths long, and very thin."

"I know that rod," says Wolfman, his insides gone albino.

"The conjunctiva of one eye-

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socket is pierced, the eyeball being cushioned on the sufferer's cheek," my new unfriend elaborates. "Through a small incision in the upper orbit, the rod probes for and disrupts those precincts of the brain-mantle where the Id lives. The eye is then screwed back into its socket, and the whilom sociopath returns to the company of his fellows clean and open-hearted as a child."

"Charming," I say. "Is it not true, however, that your brain-scoured convalescent is apt to find poetry a bore, and love a fiction?"

"Ah, yes," sighs this coaxial-clipper. "To be quite candid, Kevin, our prefrontal philanthropy often leaves our new brother paretically impotent. But the new you will find celibacy no heavy burden."

"How absolute the knave is!" I cry, crossing my legs. "If you're bound to prune me, you'll come at me with an honest gelding-knife, not short my fuses like a burglar." There is some asperity in my tone. My therapist fondles the silver Wolfbane on his left arm, and I unclench my fists.

"Most of you say that," sheepdog says. "We're not bound, all the same, to let the sinners of our forefathers visit upon us unchecked. We must, as you say, defuze you, as one would defuze a . . . what was the thing called? Bomb?"

"Is there no need in this pleasure-park of demolition?" I demand. "Are assassins' blades now dry letter-openers, coy fingernail-parers?"

"Do I hear rightly, Kevin McWha?" asks the nude frontiersman, his cheeks flushed with rude hemoglobin. "Had you really rather kill than be cured?"

"Five-by-five," I answer. "Yes!"

Kewpie glances up, gauging the altitude of the sun. "You must be hungry," he suggests.

"I haven't had a bite to eat in six generations," Wolfman points out. "A ham sandwich could bridge the void of centuries."

"Ham? No, Kevin. We no longer exploit our fellow-beasts for protein."

"No matter," I sigh, rising to follow him down the garden path. "I'm sure there's no mustard, either, here."

We pass the mausoleum. Son-of-Woe shudders with a chilly thought of the two hundred years he lay there, ripening like a cicada in the earth. I consider the gelid thousands buried still in that timeproof dungeon, waiting for a Lincoln to strike free their icy chains.

The park cuddles about the village of Adamites, who are strolling its paths placidly soaking sunlight, not flinching even at the sight of preserved great-great-grandpa's Twentieth-Century walking-shorts. The houses, Black

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Forest clock-cases, scatter about playing-fields where snowtopped gentlefolk croquet with balsa balls, and wading-pools where bare babies laugh and slop their feet. I see virgins whose breasts have not conceded gravitation bouncing about a-bowling on the green.

The community hall bears above its entrance a motto my host translates to mean *Don't Rock The Boat.*

We enter the dining-hall and take a table between the fountain and the orchestra. Gymnosophs of all shades, patent-leather Zulu to chamois-skin Finn, stop to gossip with my tour-director. Their language is soft and open-mouthed, like Hawaiian. My English speech, raucous echo from Baltic marshes and Rhenish forests, is not unknown. "Welcome," one says; another, "Eat hearty!" A young man grins. "We'll be seeing you," he says.

After a refection of biscuits and crisp greens, we move to a table in the small motion-picture theater. The film is patently a love-story. We are in, so to speak, at the kill. The hero and heroine are sealing their troth in a triumphant act of kind, string-music racing bedsprings to crescendo. Drums, hautboys, and a trumpet-blast; Fade Out.

"Now," announces Adonis, "the Feature." He hands me a sweet from the shallow bowl on our table.

On the stereo screen blooms the planet Earth, photographed from perhaps the moon. A Zeus-size zoomar hurls us down. Space-sick, I grip the table-edge to make it creak. We're falling toward Australia, old continent of exile.

We drop into the woods of Arnam Land, the front ear of the kangaroo I saw in the atlas as a child. "This used to be an Aboriginal Area," chuckles Constant Companion. "Unfortunately, the little brown boomerangers have lost their forests to a fiercer breed." The camera that feeds our screen swoops and ducks through fat-stemmed gum-trees. Tropical birds, blood-red bile-green, caw and chatter from the tufts of screw-palms. The swampmud belches bubbles.

One man appears, wearing a kilt of pounded bark. His blond beard is streaked with the yolk of his breakfast eggs; his feet are wrapped in buskins of crocodile-hide He waves his right arm —the left holds a nine-foot spear —and companions scruffy as himself skulk from behind the cycad-palms and stringybark trees into the clearing. Our camera perches on a convenient wild-fig tree to kibitz the making-camp.

"That's a death-spear the leader carries," my interpreter whispers. "Bits of shell and stone are stuck to its point with resin, to wipe off in the wound and cause a festering death."

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The camera flutters off its perch to inspect the band of junglemen in detail. A red-bearded giant whose right eye lies buried in its crushed arch swings his morning-star about his head, cursing the camera. One-eye's weapon, a rock the size of two hands clasped, bagged at the end of a liana, whips up toward the eavesdropping automaton. The camera hops in the air; the rock drops back to its hurler.

The rest of the primitives ignore our watchbird. Some twenty men beat about in the bamboo-clumps for hidden enemies. All clear. Blondy whistles through his teeth. Four hags, leeched dry by heat and protozoa, herd children from the bush. The camera peers. Kids are everywhere. These youngsters are skinny, their hair plastered back with mud We're treated to a closeup of one of the girls, some twelve years old. Her skin is pebbled with rasberry lesions, and her hair has mostly fallen out. A boy of six is led to the center of the clearing by his sister. The camera holds a clinical conference on his white-filmed eyes. A worm uncoils behind one translucent pupil. "My God!" I bark.

"We're not religious here," Nig-Nog remarks. "But watch now, Kevin-lad."

One of the leather women takes a sack of fish from her shoulder and spits bits on twigs. Another, who carries coals in an earthware pot, piles up the jungle-duff the children bring her and starts the cookfire. The men rest on their haunches, crutching up exhaustion on their spear-shafts.

As though the perfume of roasting fish were their signal, a second troop screams from the jungle. Ambush! One of the attackers swings his string of pawnbroker-balls about his head, releases it, and straps Blondy to his useless spear. Another kneels at the jungle-edge to fit flints into the pouch of his pellet-bow, flinging bullets against the skulls of the defenders. The blind boy, howling, blunders into the legs of a man with a mace, who swats him dead with a hammerblow.

Victory for the ambushers. One hero drags the girl with yaws to the fringes of the clearing, where he bangs her head against a log and rapes her. The camera swoops to remind its audience of the Psalmist's Fourth Wonder, the way of a man with a maid.

Blondy is trussed between forks above his cookfire. The winners snatch fish from under his screaming body to tear and finger-lick. Others gather about the victims with stone knives, giggling and holding up from time to time bits of bloody flesh. The women are enjoyed in order of the victors' rank.

After half an hour, the stolen fish all eaten, the battered women

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are led off into the jungle on halters. Flies settle to police the area.

Wolfman fights back peristalsis. "I thought you didn't have war," I say.

"We don't," says my fellow-viewer, leading me into the sunlight. "But you fellows do. It's your nature."

We sit again on the mossy benches by the stream. "It really happened?" I ask.

"Ten minutes ago," he says. "You give the men and women you thaw from the Criminal Crypts a choice," I say. "Zombihood or transport to Australia."

"The first is the wiser option," says the surgeon's nark. "Some of our most pleasant citizens were once as wild as you are, Kevin. The others, as you saw, furnish us the excitement healthy humans need, making the blood sing through our veins in the ancient poetry of slaughter."

He is strong, but with his right arm broken he can't trigger the Wolfman-gun on his left. He belches as I hold his golden head under the singing creek. At last I wedge him between the first and second stepping-stone. I strap to my arm his silver disc and run. I run past the Crypts, where companions wait an unhallowed resurrection.

I hear dogs, now, baying beside the little stream where I washed away the trail. I'm heading into the mountains, wolf-country.

When I come downhill again, when I've crowned myself King of the Frozen Pirates, I'll make the blood sing through the veins of these loving folk. And from them.

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This is perhaps not quite the Yuletide tale to read to your little nephew or your sweet old aunt. Still, while its theology is questionable, its sociology is rather sound. As for the author, we have been absolutely unable to learn anything about him or his whereabouts, and this, too, makes us wonder . . .

NACKLES

by Curt Clark

DID GOD CREATE MEN, OR DOES Man create gods? I don't know, and if it hadn't been for my rotten brother-in-law the question would never have come up. My *late* brother-in-law? Nackles knows.

It all depends, you see, like the chicken and the egg, on which came first. Did God exist before Man first thought of Him, or didn't He? If not, if Man creates his gods, then it follows that Man must create the devils, too.

Nearly every god, you know, has his corresponding devil. Good *and* Evil. The polytheistic ancients, prolific in the creation (?) of gods and goddesses, always worked up nearly enough Evil ones to cancel out the Good, but not quite. The Greeks, those incredible supermen, combined Good and Evil in *each* of their gods. In Zoroaster, Ahura Mazda, being Good, is ranged forever against the Evil one, Ahriman. And we ourselves know God and Satan.

But of course it's entirely possible I have nothing to worry about. It all depends on whether Santa Claus is or is not a god. He certainly *seems* like a god. Consider: He is omniscient; he knows every action of every child, for good or evil. At least on Christmas Eve he is omnipresent, everywhere at once. He administers justice tempered with mercy. He is superhuman, or at least non-human, though conceived of as having a human shape. He is aided by a corps of assistants who do *not* have completely human shapes. He rewards Good and punishes Evil. And, most important, he is believed in utterly by several million people, most of them under the age of ten. Is there any qualification for godhood that Santa Claus does not possess?

And even the non-believers give

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him lip-service. He has surely taken over Christmas; his effigy is everywhere, but where are the manger and the Christ child? Retired rather forlornly to the nave. (Santa's power is growing, too. Slowly but surely he is usurping Chanukah as well.)

Santa Claus *is* a god He's no less a god than Ahura Mazda, or Odin, or Zeus. Think of the white beard, the chariot pulled through the air by a breed of animal which doesn't ordinarily fly, the prayers (requests for gifts) which are annually mailed to him and which so baffle the Post Office, the specially-garbed priests in all the department stores. And don't gods reflect their creators' (?) society? The Greeks had a huntress goddess, and gods of agriculture and war and love. What else would we have but a god of giving, of merchandising, and of consumption? Secondary gods of earlier times have been stout, but surely Santa Claus is the first fat primary god.

And wherever there is a god, mustn't there sooner or later be a devil?

Which brings me back to my brother-in-law, who's to blame for whatever happens now. My brother-in-law Frank is—or was—a very mean and nasty man. Why I ever let him marry my sister I'll never know. Why Susie *wanted* to marry him is an even greater mystery. I could just shrug and say Love Is Blind, I suppose, but that wouldn't explain how she fell in love with him in the first place.

Frank is—Frank was—I just don't know what tense to use. The present, hopefully. Frank is a very handsome man in his way, big and brawny, full of vitality. A football player; hero in college and defensive line-backer for three years in pro ball, till he did some sort of irreparable damage to his left knee, which gave him a limp and forced him to find some other way to make a living.

Ex-football players tend to become insurance salesmen, I don't know why. Frank followed the form, and became an insurance salesman. Because Susie was then a secretary for the same company, they soon became acquainted

Was Susie dazzled by the ex-hero, so big and handsome? She's never been the type to dazzle easily, but we can never fully know what goes on inside the mind of another human being. For whatever reason, she decided she was in love with him.

So they were married, and five weeks later he gave her her first black eye. And the last, though it mightn't have been, since Susie tried to keep me from finding out. I was to go over for dinner that night, but at eleven in the morning she called the auto showroom where I work, to tell me she had a headache and we'd have to postpone the dinner. But she sounded so upset that I knew immediately

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something was wrong, so I took a demonstration car and drove over, and when she opened the front door there was the shiner.

I got the story out of her slowly, in fits and starts. Frank, it seemed, had a terrible temper. She wanted to excuse him because he was forced to be an insurance salesman when he really wanted to be out there on the gridiron again, but I want to be President and I'm an automobile salesman and I don't go around giving women black eyes So I decided it was up to me to let Frank know he wasn't to vent his pique on my sister any more.

Unfortunately, I am five feet seven inches tall and weigh one hundred thirty-four pounds, with the Sunday Times under my arm. Were I just to give Frank a piece of my mind, he'd surely give me a black eye to go with my sister's. Therefore, that afternoon I bought a regulation baseball bat, and carried it with me when I went to see Frank that night.

He opened the door himself and snarled, "What do *you* want?"

In answer, I poked him with the end of the bat, just above the belt, to knock the wind out of him. Then, having unethically gained the upper hand, I clouted him five or six times more, and then stood over him to say, "The next time you hit my sister I won't let you off so easy." After which I took Susie home to *my* place for dinner.

And after which I was Frank's best friend.

People like that are so impossible to understand. Until the baseball bat episode, Frank had nothing for me but undisguised contempt. But once I'd knocked the stuffings out of him, he was my comrade for life. And I'm sure it was sincere; he would have given me the shirt off his back, had I wanted it, which I didn't.

(Also, by the way, he never hit Susie again, He still had the bad temper, but he took it out in throwing furniture out windows or punching dents in walls or going downtown to start a brawl in some bar. I offered to train him out of maltreating the house and furniture as I had trained him out of maltreating his wife, but Susie said no, that Frank had to let off steam and it would be worse if he was forced to bottle it all up inside him, so the baseball bat remained in retirement.)

Then came the children, three of them in as many years. Frank Junior came first, and then Linda Joyce, and finally Stewart. Susie had held the forlorn hope that fatherhood would settle Frank to some extent, but quite the reverse was true. Shrieking babies, smelly diapers, disrupted sleep, and distracted wives are trials and tribulations to any man, but to Frank they were—like everything else in his life—the last straw.

He became, in a word, worse.

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Susie restrained him I don't know how often from doing some severe damage to a squalling infant, and as the children grew toward the age of reason Frank's expressed attitude toward them was that their best move would be to find a way to become invisible. The children, of course, didn't like him very much, but then who did?

Last Christmas was when *it* started. Junior was six then, and Linda Joyce five, and Stewart four, so all were old enough to have heard of Santa Claus and still young enough to believe in him. Along around October, when the Christmas season was beginning, Frank began to use Santa Claus's displeasure as a weapon to keep the children "in line", his phrase for keeping them mute and immobile and terrified. Many parents, of course, try to enforce obedience the same way: "If you're bad, Santa Claus won't bring you any presents." Which, all things considered, is a negative and passive sort of punishment, wishy-washy in comparison with fire and brimstone and such. In the old days, Santa Claus would treat bad children a bit more scornfully, leaving a lump of coal in their stockings in lieu of presents, but I suppose the Depression helped to change that. There are times and situations when a lump of coal is nothing to sneer at.

In any case, an absence of presents was too weak a punishment for Frank's purposes, so last Christmastime he invented Nackles.

Who is Nackles? Nackles is to Santa Claus what Satan is to God, what Ahriman is to Ahura Mazda, what the North Wind is to the South Wind. Nackles is the new Evil.

I think Frank really *enjoyed* creating Nackles; he gave so much thought to the details of him. According to Frank, and as I remember it, this is Nackles: Very very tall and very very thin. Dressed all in black, with a gaunt gray face and deep black eyes. He travels through an intricate series of tunnels under the earth, in a black chariot on rails, pulled by an octet of dead-white goats

And what does Nackles do? Nackles lives on the flesh of little boys and girls. (This is what Frank was telling his children; can you believe it?) Nackles roams back and forth under the earth, in his dark tunnels darker than subway tunnels, pulled by the eight dead-white goats, and he searches for little boys and girls to stuff into his big black sack and carry away and eat. But Santa Claus won't let him have *good* boys and girls. Santa Claus is stronger than Nackles, and keeps a protective shield around little children, so Nackles can't get at them.

But when little children are bad, it hurts Santa Claus, and weakens the shield Santa Claus

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has placed around them, and if they keep on being bad pretty soon there's no shield left at all, and on Christmas Eve instead of Santa Claus coming down out of the sky with his bag of prseents Nackles comes up out of the ground with his bag of emptiness, and stuffs the bad children in, and whisks them away to his dark tunnels and the eight dead-white goats.

Frank was proud of his invention, actually proud of it. He not only used Nackles to threaten his children every time they had the temerity to come within range of his vision, he also spread the story around to others. He told me, and his neighbors, and people in bars, and people he went to see in his job as insurance salesman. I don't know how many people he told about Nackles, though I would guess it was well over a hundred. And there's more than one Frank in this world; he told me from time to time of a client or neighbor or bar-crony who had heard the story of Nackles and then said, "By God, that's great. That's what *I've* been needing, to keep *my* brats in line."

Thus Nackles was created, and thus Nackles was promulgated. And would any of the unfortunate children thus introduced to Nackles believe in this Evil Being any less than they believed in Santa Claus? Of course not.

This all happened, as I say, last Christmastime. Frank invented Nackles, used him to further intimidate his already-intimidated children, and spread the story of him to everyone he met. On Christmas Day last year I'm sure there was more than one child in this town who was relieved and somewhat surprised to awaken the same as usual, in his own trundle bed, and to find the presents downstairs beneath the tree, proving that Nackles had been kept away yet another year.

Nackles lay dormant, so far as Frank was concerned, from December 25th of last year until this October. Then, with the sights and sounds of Christmas again in the land, back came Nackles, as fresh and vicious as ever. "Don't expect *me* to stop him!" Frank would shout. "When he comes up out of the ground the night before Christmas to carry you away in his bag, don't expect any help from *me!*"

It was worse this year than last. Frank wasn't doing as well financially as he'd expected, and then early in November Susie discovered she was pregnant again, and what with one thing and another Frank was headed for a real peak of ill-temper. He screamed at the children constantly, and the name of Nackles was never far from his tongue.

Susie did what she could to counteract Frank's bad influence, but he wouldn't let her do much. All through November and De-

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cember he was home more and more of the time, because the Christmas season is the wrong time to sell insurance anyway and also because he was hating the job more every day and thus giving it less of his time. The more he hated the job, the worse his temper became, and the more he drank, and the worse his limp got, and the louder were his shouts, and the more violent his references to Nackles. It just built and built and built, and reached its crescendo on Christmas Eve, when some small or imagined infraction of one of the children—Stewart, I think—resulted in Frank's pulling all the Christmas presents from all the closets and stowing them all in the car to be taken back to the stores, because this Christmas for sure it wouldn't be Santa Claus who would be visiting this house, it would be Nackles.

By the time Susie got the children to bed, everyone in the house was a nervous wreck. The children were too frightened to sleep, and Susie was too unnerved herself to be of much help in soothing them. Frank, who had taken to drinking at home lately, had locked himself in the bedroom with a bottle.

It was nearly eleven o'clock before Susie got the children all quieted down, and then she went out to the car and brought all the presents back in and ranged them under the tree. Then, not wanting to see or hear her husband any more that night —he was like a big spoiled child throwing a tantrum—she herself went to sleep on the living room sofa.

Frank Junior awoke her in the morning, crying, "Look, Mama! Nackles *didn't* come, he *didn't* come!" And pointed to the presents she'd placed under the tree.

The other two children came down shortly after, and Susie and the youngsters sat on the floor and opened the presents, enjoying themselves as much as possible, but still with restraint. There were none of the usual squeals of childish pleasure; no one wanted Daddy to come storming downstairs in one of his rages. So the children contented themselves with ear-to-ear smiles and whispered exclamations, and after a while Susie made breakfast, and the day carried along as pleasantly as could be expected under the circumstances.

It was a little after twelve that Susie began to worry about Frank's non-appearance. She braved herself to go up and knock on the locked door and call his name, but she got no answer, not even the expected snarl, so just around one o'clock she called me and I hurried on over. I rapped smartly on the bedroom door, got no answer, and finally I threatened to break the

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door in if Frank didn't open up. When I still got no answer, break the door in I did.

And Frank, of course, was gone.

The police say he ran away, deserted his family, primarily because of Susie's fourth pregnancy. They say he went out the window and dropped to the back yard, so Susie wouldn't see him and try to stop him. And they say he didn't take the car because he was afraid Susie would hear him start the engine.

That all sounds reasonable, doesn't it? Yet, I just can't believe Frank would walk out on Susie without a lot of shouting about it first. Nor that he would leave his car, which he was fonder of than his wife and children.

But what's the alternative? There's only one I can think of: Nackles.

I would rather not believe that. I would rather not believe that Frank, in inventing Nackles and spreading word of him, made him real. I would rather not believe that Nackles actually did visit my sister's house on Christmas Eve.

But did he? If so, he couldn't have carried off any of the children, for a more subdued and better-behaved trio of youngsters you won't find anywhere. But Nackles, being brand-new and never having had a meal before, would need *somebody*. Somebody to whom he was real, somebody not protected by the shield of Santa Claus. And, as I say, Frank was drinking that night. Alcohol makes the brain believe in the existence of all sorts of things. Also, Frank was a spoiled child if there ever was one.

There's no question but that Frank Junior and Linda Joyce and Stewart believe in Nackles. And Frank spread the gospel of Nackles to others, some of whom spread it to their own children. And some of whom will spread the new Evil to other parents. And ours is a mobile society, with families constantly being transferred by Daddy's company from one end of the country to another, so how long can it be before Nackles is a power not only in this one city, but all across the nation?

I don't know if Nackles exists, or will exist. All I know for sure is that there's suddenly a new level of meaning in the lyric of that popular Christmas song. You know the one I mean:

You'd better watch out. ◀

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SCIENCE

ROUND AND ROUND AND . . .

by Isaac Asimov

ANYONE WHO WRITES A BOOK ON ASTRONOMY FOR THE GENERAL public eventually comes up against the problem of trying to explain that the Moon always presents one face to the earth, but is nevertheless rotating.

To the average reader who has not come up against this problem before and who is impatient with involved subtleties, this is a clear contradiction in terms. It is easy to accept the fact that the Moon always presents one face to the Earth because even to the naked eye, the shadowy blotches on the Moon's surface are always present in the same position. But in that case it seems clear that the Moon is not rotating, for if it were rotating we would, bit by bit, see every portion of its surface.

Now it is no use smiling gently at the lack of sophistication of the average reader, because he happens to be right. The Moon is *not* rotating with respect to the observer on the Earth's surface. When the astronomer says that the Moon *is* rotating, he means with respect to other observers altogether.

For instance, if one watches the Moon over a period of time, one can see that the line marking off the sunlight from the shadow progresses steadily around the Moon; the Sun shines on every portion of the Moon in steady progression. This means that to an observer on the surface of the Sun (and there are very few of those), the Moon would seem to be rotating, for the observer would, little by little, see every portion of the Moon's surface as it turned to be exposed to the sunlight.

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But our average reader may reason to himself as follows: "I see only one face of the Moon and I say it is *not* rotating. An observer on the Sun sees all parts of the Moon and he says it *is* rotating. Clearly, I am more important than the Sun-observer since, firstly, I exist and he doesn't, and, secondly, even if he existed, I am me and he isn't. Therefore, I insist on having it my way. The Moon does *not* rotate!"

There has to be a way out of this confusion, so let's think things through a little more systematically. And to do so, let's start with the rotation of the Earth itself, since that is a point nearer to all our hearts.

One thing we can admit to begin with: To an observer on the Earth, the Earth is not rotating. If you stay in one place from now till doomsday, you will see but one portion of the Earth's surface and no other. As far as you are concerned, the planet is standing still. Indeed, through most of civilized human history, even the wisest of men insisted that "reality" (whatever that may be) exactly matched the appearance and that the earth "really" did not rotate. As late as 1633, Galileo found himself in a spot of trouble for maintaining otherwise.

But suppose we had an observer on a star situated (for simplicity's sake) in the plane of the Earth's equator; or, to put it another way, on the Celestial Equator. Let us further suppose that the observer was equipped with a device that made it possible for him to study the Earth's surface in detail. To him, it would seem that the Earth rotated, for little by little, he would see every part of its surface pass before his eyes. By taking note of some particular small feature (say, you and I standing on some point on the equator) and timing its return, he could even determine the exact period of the Earth's rotation.—That is, as far as he is concerned.

We can duplicate his feat, for when the observer on the star sees us exactly in the center of that part of Earth's surface visible to himself, we in turn see the observer's star directly overhead. And just as he would time the periodic return of ourselves to that centrally located position, so we could time the return of his star to the overhead point. The period determined will be the same in either case. (Let's measure this time in minutes, by the way. A minute can be defined as 60 seconds, where 1 second is equal to 1/31,556,925.9747 of the tropical year.)

The period of Earth's rotation with respect to the star is just about 1436 minutes. It doesn't matter which star we use, by the way, for the apparent motion of the stars with respect to one another, as viewed

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from the Earth, is so vanishingly small that the constellations can be considered as moving all in one piece.

The period of 1436 minutes is called Earth's "sidereal day." The word "sidereal" comes from a Latin word for "star" and the phrase therefore means, roughly speaking, "the star-based day."

Suppose, though, that we were considering an observer on the Sun. If he were watching the Earth, he, too, would observe it rotating, but the period of rotation would not seem the same to him as to the observer on the star. Our Solar observer would be much closer to the Earth; close enough, in fact, for Earth's motion about the Sun to introduce a new factor. In the course of a single rotation of the Earth (judging by the star's observer), the Earth would have moved an appreciable distance through space and the Solar observer would find himself viewing the planet from a different angle. The Earth would have to turn for four more minutes before it adjusted itself to the new angle of view.

We could interpret these results from the point of view of an observer on the Earth. To duplicate the measurements of the Solar observer, we on Earth would have to measure the period of time from one passage of the Sun overhead to the next (from noon to noon, in other words). Because of the revolution of the Earth about the Sun, the Sun seems to move from west to east against the background of the stars. After the passage of one sidereal day, a particular star would have returned to the overhead position, but the Sun would have drifted eastward to a point where four more minutes would be required to make it pass overhead. The Solar day is therefore 1440 minutes long, 4 minutes longer than the sidereal day.

Next suppose we have an observer on the Moon. He is even closer to the Earth and the apparent motion of the Earth against the stars is some thirteen times greater for him than for an observer on the Sun. Therefore, the discrepancy between what he sees and what the star-observer sees is about thirteen times greater than is the Sun/star discrepancy.

If we consider this same situation from the Earth, we would be measuring the time between successive passages of the Moon exactly overhead. The Moon drifts eastward against the starry background at thirteen times the rate the Sun does. After one sidereal day is completed, we have to wait a total of 54 additional minutes for the Moon to pass overhead again. The Earth's "Lunar day" is therefore 1490 minutes long.

We could also figure out the periods of Earth's rotation with respect

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to an observer on Venus, on Jupiter, on Halley's Comet, on an artificial satellite and so on, but I shall have mercy and refrain. We can instead summarize the little we do have as follows:

Sidereal day	1436 minutes
Solar day	1440 minutes
Lunar day	1490 minutes

By now it may seem reasonable to ask: But which is *the* day? The *real* day?

The answer to that question is that the question is not a reasonable one at all, but quite unreasonable; and that there is no real day, no real period of rotation. There are only different *apparent* periods, the lengths of which depend upon the position of the observer. To use a prettier-sounding phrase, the length of the period of the Earth's rotation depends on the frame of reference, and all frames of reference are equally valid.

But if all frames of reference are equally vaild, are we left nowhere?

Not at all! Frames of reference may be equally valid, but they are usually not equally useful. In one respect, a particular frame of reference may be most useful; in another respect, another frame of reference may be most useful. We are free to pick and choose, using now one, now another, exactly as suits our dear little hearts.

For instance, I said that the Solar day is 1440 minutes long but actually that's a lie. Because the Earth's axis is tipped to the plane of its orbit and because the Earth is sometimes closer to the Sun and sometimes farther (so that it moves now faster, now slower in its orbit) the Solar day is sometimes a little longer than 1440 minutes and sometimes a little shorter. These deviations add up and if you mark off "noons" that are exactly 1440 minutes apart all through the year, there will be times during the year when the Sun will pass overhead fully 16 minutes ahead of schedule and other times when it will pass overhead fully 16 minutes behind schedule. Fortunately, the errors cancel out and by the end of the year, all is even again.

For that reason, it is not the Solar day itself that is 1440 minutes long, but the average length of all the Solar days of the year; this average is the "mean Solar day." And at noon of all but four days a year, it is not the real Sun that crosses the overhead point but a fictitious body called the "mean Sun." The mean Sun is located where the real Sun would be if the real Sun moved perfectly evenly.

The Lunar day is even more uneven than the Solar day, but the

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sidereal day is a really steady affair. A particular star passes overhead every 1436 minutes virtually on the dot.

If we're going to measure time, then, it seems obvious that the sidereal day is the most useful, since it is the most constant. Where the sidereal day is used as the basis for checking the clocks of the world by the passage of a star across the hairline of a telescope eye-piece, then the earth itself, as it rotates with respect to the stars, is serving as the reference-clock. The second can then be defined as 1/1,436.09 of a sidereal day. (Actually, the length of the year is even more constant than that of the sidereal day, which is why the second is now officially defined as a fraction of the tropical year.)

The Solar day, uneven as it is, carries one important advantage. It is based on the position of the Sun, and the position of the Sun determines whether a particular portion of the Earth is in light or in shadow. In short, the Solar day is equal to one period of light (daytime) plus one period of darkness (nighttime). The average man throughout history has managed to remain unmoved by the position of the stars and couldn't have cared less when one of them moved overhead; but he certainly couldn't help noticing, and even being deeply concerned, by the fact that it might be day or night at a particular moment; sunrise or sunset; noon or twilight.

It is the Solar day, therefore, which is by far the most useful and important day of all. It was the original basis of time measurement and it is divided into exactly 24 hours, each of which is divided into 60 minutes (and 24 times 60 is 1440, the number of minutes in a Solar day). On this basis, the sidereal day is 23 hours 56 minutes long and the Lunar day is 24 hours 50 minutes long.

So useful is the Solar day, in fact, that mankind has become accustomed to thinking of it as *the* day, and of thinking that the Earth "really" rotates in exactly 24 hours, where actually this is only its apparent rotation with respect to the Sun, no more "real" or "unreal" than its apparent rotation with respect to any other body. It is no more "real" or "unreal", in fact, than the apparent rotation of the Earth with respect to an observer on the Earth—that is, to the apparent lack of rotation altogether.

The Lunar day has its uses, too. If we adjusted our watches to lose 2 minutes 5 seconds every hour, it would then be running on a Lunar day basis. In that case, we would find that high tide (or low tide) came exactly twice a day and at the same times every day—indeed, at twelve hour intervals (with minor variations).

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And extremely useful is the frame of reference of the Earth itself; to wit, the assumption that the Earth is not rotating at all. In judging a billiard shot, in throwing a basball, in planning a trip cross-country, we never take into account any rotation of the Earth. We always assume the Earth is standing still.

Now we can pass on to the Moon. For the viewer from the Earth, as I said earlier, it does not rotate at all so that its "Terrestrial day" is of infinite length. Nevertheless, we can maintain that the Moon rotates if we shift our frame of reference (usually without warning or explanation so that the reader has trouble following). As a matter of fact, we can shift our plane of reference to either the Sun or the stars so that not only can the Moon be considered to rotate but to do so in either of two periods.

With respect to the stars, the period of the Moon's rotation is 27 days, 7 hours, 43 minutes, 11.5 seconds, or 27.3217 days (where the day referred to is the 24-hour mean Solar day). This is the Moon's sidereal day. It is also the period (with respect to the stars) of its revolution about the Earth so it is almost invariably called the "sidereal month."

In one sidereal month, the Moon moves about 1/13 of the length of its orbit about the Sun and to an observer on the Sun, the change in angle of viewpoint is considerable. The Moon must rotate for over two more days to make up for it. The period of rotation of the Moon with respect to the Sun is the same as its period of revolution about the Earth with respect to the Sun and this may be called the Moon's Solar day or, better still, the Solar month. (As a matter of fact, as I shall shortly point out, it is called neither.) The Solar month is 29 days, 12 hours, 44 minutes, 2.8 seconds long, or 29.5306 days long.

Of these two months, the Solar month is far more useful to mankind because the phases of the Moon depend on the relative positions of Moon and Sun. It is therefore 29.5306 days, or one Solar month, from new Moon to new Moon, or from full Moon to full Moon. In ancient times, when the phases of the Moon were used to mark off the seasons, the Solar month became the most important unit of time.

Indeed, great pains were taken to detect the exact day on which successive new Moons appeared in order that the calendar be accurately kept. It was the place of the priestly caste to take care of this and the very word "calendar," for instance, comes from the Latin word meaning "to proclaim" because the beginning of each month was proclaimed with much ceremony. An assembly of priestly officials, such

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as those that, in ancient times, might have proclaimed the beginning of each month, is called a "synod." Consequently, what I have been calling the Solar month (the logical name) is, actually, called the "synodic month."

The further a planet is from the Sun and the faster it turns with respect to the stars, the smaller the discrepancy between its sidereal day and Solar day. For the planets beyond Earth, the discrepancy can be ignored.

For the two planets closer to the Sun than the Earth is, the discrepancy is very great. Both Mercury and Venus turn one face eternally to the Sun and have no Solar day. They turn with respect to the stars, however, and have a sidereal day which turns out to be as long as the period of their revolution about the Sun (again with respect to the stars).

If the various true satellites of the Solar system (see JUST MOONING AROUND, F & SF, May 1963) keep one face to their primaries at all times, as is very likely true, their sidereal day would be equal to their period of revolution about their primary.

If this is so I can prepare a table (not quite like any I have ever seen) listing the sidereal period of rotation for each of the 32 major bodies of the Solar system: the Sun, the Earth, the eight other planets (even Pluto, which has a rotation figure, albeit an uncertain one), the Moon, and the 21 other true satellites. For the sake of direct comparison, I'll give the period in minutes and list them in the order of length. After each satellite, I shall put the name of the primary in parenthesis and give a number to represent the position of that satellite, counting outward from the primary.

Body	*Sidereal Day (minutes)*
Venus	324,000
Mercury	129,000
Iapetus (Saturn-8)	104,000
Moon (Earth-1)	39,300
Sun	36,060
Hyperion (Saturn-7)	30,600
Callisto (Jupiter-5)	24,000
Titan (Saturn-6)	23,000
Oberon (Uranus-5)	19,400
Titania (Uranus-4)	12,550

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Ganymede (Jupiter-4)	10,300
Pluto	8,650
Triton (Neptune-1)	8,450
Rhea (Saturn-5)	6,500
Umbriel (Uranus-3)	5,950
Europa (Jupiter-3)	5,100
Dione (Saturn-4)	3,950
Ariel (Uranus-2)	3,630
Tethys (Saturn-3)	2,720
Io (Jupiter-2)	2,550
Miranda (Uranus-1)	2,030
Enceladus (Saturn-2)	1,975
Deimos (Mars-2)	1,815
Mars	1,477
Earth	1,436
Mimas (Saturn-1)	1,350
Neptune	948
Amaltheia (Jupiter-1)	720
Uranus	645
Saturn	614
Jupiter	590
Phobos	460

These figures represent the time it takes for stars to make a complete circuit of the skies from the frame of reference of an observer on the surface of the body in question. If you divide each figure by 720, you get the number of minutes it would take a star (in the region of the body's Celestial Equator) to travel the width of the Sun or Moon as seen from the Earth.

On Earth itself, this takes about 2 minutes and no more, believe it or not. On Phobos (Mars' inner satellite, on which men will be standing before the end of the century, I hope), it takes only a little over half a minute. The stars will be whirling by at four times their customary rate, while a bloated Mars hangs motionless in the sky. What a sight that would be to see.

On the Moon, on the other hand, it would take 55 minutes for a star to cover the apparent width of the Sun. Heavenly bodies could be studied over continuous sustained intervals nearly thirty times as long as is possible on the Earth. I have never seen this mentioned as an advantage for a Moon-based telescope, but, combined with the absence of clouds or other atmospheric interference, it makes a Lunar

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observatory something astronomers ought to be willing to undergo rocket trips for.

On Venus, it would take 450 minutes or 7½ hours for a star to travel the apparent width of the Sun as we see it. What a fix astronomers could get on the heavens there—if only there were no clouds.

I would like to end the discussion of rotation here, somewhat short of the usual length, in order to take time out to make a few points concerning a couple of recent articles.

IN THE ISAAC WINNERS (F & SF, July, 1963) I nominated 72 scientists as the greatest of all time. In doing so, I made one factual error. I recorded Louis V. de Broglie (nominee #7) as having died in 1960. Professor Linus Pauling (nominee #57) was kind enough to write me and remind me that it was de Broglie's brother, and not de Broglie himself, who died then. Louis V. de Broglie is still alive, I am glad to say.

Readers have written in to nominate additional scientists, such as: Robert H. Goddard, the first to devise a liquid-fueled rocket; Euclid, the organizer of mathematics; Charles H. Townes, the inventor of the maser and inspirer of the laser; Percival Lowell, the reporter of the Martian canals and the searcher for Pluto; Leonardo da Vinci, great artist and proto-scientist; Roger Bacon, another proto-scientist; Hippocrates, the father of medicine; Guglielmo Marconi, the inventor of the radio; George Gamow, pioneer in cosmology; Socrates, ancient seeker after knowledge; Alfred B. Nobel, inventor of dynamite; Emil Fischer, organic chemist extraordinary; Michael Servetus, near-discoverer of the circulation of the blood; and so on.

All these are perfectly valid nominees and, as I think it over, I would include most of them if I had to prepare my list again.

A number of readers had the courage to prepare a list of ten Isaac Winners with, naturally, a great many disagreements, both with me and among themselves. (One Gentle Reader, however, reported with great glee that, working out a list on his own, he found, upon checking, that he had obtained one that was identical with mine. His was clearly a great mind.)

It might be of interest to point out that only two men were included on every list of ISAAC WINNERS sent me. One of them was Newton, but I plugged so hard for the Greatest Isaac of Them All in my article that it was nearly impossible to omit him, I suppose. The second name

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included on every list was that of Louis Pasteur, and that isn't bad. I yield to no one in my admiration of the Greatest Louis of Them All.

As for T-FORMATION (F & SF, August 1963) that drew considerable mail, too, as my occasional mathematical pieces invariably seem to do. In this case, a good portion of the mail dealt with the fact that I had seemed to call the number 7,641 a prime, whereas actually it is a composite number equal to(3) (3) (3) (283).

This is how that came about. I listed three prime numbers: 7 and 641 and 5,237, each of them an honest-to-goodness prime. However, I foolishly wrote the numbers thus "7, 641, and 5,237". The Noble Printer, very naturally, thought the first two numbers belonged together and it came out "7,641 and 5,237."

Mr. Robert Higgins, of Chicago, Illinois, having read the article, hooked up an IBM 1401, and spent a total of 20 minutes time, programming the machine and having it work out the first 614 Fibonacci numbers. It took exactly 1 minute for the machine to print them all and it would have gone on longer but for the fact that the 615th Fibonacci number required more digits than the machine was equipped to print.

Mr. Higgins largest Fibonacci number, F_{614}, is somewhat over T-10.5.

Mr. Joseph S. Madachy, editor of *Recreational Mathematics Magazine* reports that he now has a list of the first thousand Fibonacci numbers and that F_{1000} has 209 digits which would make it something over T-17.

In T-FORMATION, I also dealt with the Mersenne primes and reported that the largest then-known Mersenne prime was equal to just over T-111. Since I wrote the article, Donald B. Gillies of the University of Illinois has located three still larger Mersenne primes. These are M_{9689}, M_{9941} and M_{11213}. These are numbers with 2917, 2992, and 3375 digits respectively. They are therefore equal, approximately, to T-243, T-249 and T-281 respectively.

There still remains, however, the fact that the largest number ever to have occurred in a mathematical proof, a number far, far larger than a googolplex, is called "Skewes' number." Who Skewes might be and what it was he proved that required so vast a number, I have recently discovered. That will require a separate article someday.

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The cult of Elijah the Prophet both encompasses and transcends such diverse religious groups as to make it surprising that only recently have folklorists begun to compare notes on the subject, which seems to have taken on a character almost apart from (though not in any way opposed to) his career as related in the Scriptures. Elijah it was who consistently opposed the "Phoenician matron," Jezebel, and who foretold her death in rather sickening detail; it was Elijah who, hiding in the wilderness, perceived the Lord neither in the storm, the earthquake, the fire, but in "the small, murmuring voice;" he it is whose footsteps increase the yields of the fields of Russia, is the patron of the furriers of Greece, who is honored in the Roman Catholic Calendar of Saints, whose intercession is entreated by the wandering Bedouin of Stony Arabia, for whom a cup of wine is filled at every table of the Passover Feast—and the manner of whose abrupt departure from the Earth has intrigued speculation both sacred and profane ever since. Edward Wellen, who earlier dealt with a religious theme in SEVEN DAYS WONDER (F&SF, March 1963), now considers how the hairy man of Gilead might have fared between his departure and his return: a return which Jewish tradition has seen set as "one day before the Coming of the Messiah . . ."

THE BOOK OF ELIJAH

by Edward Wellen

CHAPTER 1

1 AND IT CAME TO PASS, AS I crossed over Jordan with Elisha, and we went on, and we talked, that, behold, there appeared a chariot of fire, and parted us both asunder; and I went up by a whirlwind into heaven.

2 I shot upward as I were a grain and as it were a winnowing shovel that shot me upward.

3 And Elisha bent to take up my mantle and I saw the round gleam of his head, and it shrank swiftly. And I saw the round gleam of the world, and it shrank swiftly.

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4 And I saw no more for a time.

5 When I came to myself I lay on softness in a room like a cave, but with smooth walls and bright without flame.

6 And there stood beside me two beings having raiment as of the sun.

7 I gazed upon them with a chill of joy and raised myself and said unto them, Are you angels?

8 They turned to one another, and laughed, and said, No. (And it was as they spake in my head.)

9 Though my mantle had fallen from me, I am an hairy man, and girt with a girdle of leather about my loins, yet would I have felt a chill of fear had I not been a man of God.

10 I gazed upon them And I said unto them, I am a man of God. Are you demons?

11 They looked upon one another, and showed gaudy teeth, and said, No.

12 Then one said, We come from another world than yours, tethered to another star than yours. Algorab V is our home.

13 I marveled, and spake again, saying, What place is this where we are now?

14 And one touched the wall and it opened a window like an eye, and I gazed out and saw the chariot stood in a void place, where stars froze to stillness.

15 After a space I said, Where do you take me?

16 And one answered, saying, We are Students of Comparative Religion, which is to say, we seek to know the ways the many peoples manifest faith. And to that we will wander among the worlds, and search out peoples, and watch them at their devotions. You, as a being of one kind, responding to the ways of beings of other kinds, will if you are willing be our touchstone, that we twain may be of an open mind.

17 And I thought, They have taken me away to where the morning star and the evening star are one And if they seek to tempt me with strange gods they will have sown the whirlwind, for I shall call upon the God of Wrath and the God of Mercy, One God, Who is everywhere, and whose altar is an anvil whereon He beats my heart, shaping it to His will.

CHAPTER 2

1 And we put in at Mekbuda III, and saw unseen a town where two preachers had but lately come among the people.

2 And the people gave ear, not wishing to wound the feelings of the preachers. But the people found hard to understand that they lived in the shadow of doom, that the peace and ease they dwelt in were a false peace and a false ease, that they must confess, bow to judgment, and win forgiveness.

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3 And the preachers went about, one this way and one that, preaching the need to confess. And the people listened, desiring to please.

4 And I saw one of the people creep up and slay one of the preachers and run off weeping.

5 In my wrath I would have slain the slayer, but the Students held me from leaping out.

6 Then I saw the slayer seek out the other preacher.

7 And I whirled in wrath upon the Students, and said, See!

8 They writhed their tails in unease but did not move else, nor did they free me to move.

9 And the slayer fell on the preacher joyfully.

10 And he confessed to him he had slain his fellow.

11 The preacher drew back from the hand still gaudy with blood, saying, You have done a great wrong. And the slayer smiled humbly, as though the preacher praised him.

12 And the slayer told how that he had felt great liking for the other preacher, and, hearkening unto his teachings and burning with shame at having nothing to confess, he did a great wrong that he might have that which to confess.

13 But before the slayer could bow to judgment, and win forgiveness, another crept up and slew the preacher and ran off weeping joyfully, and sought the other preacher, bursting to confess to him.

14 And I thought, What is fire to the sinner is light to the just; but it may be that what is fire to the just is light to the sinner.

15 Thus I remained wondering, so that I knew it not when the Students left off restraining me and we departed thence.

Chapter 3

1 Then we came to Naos II and and we watched a people in a great city, and they were building a temple to their high god, Iluh the god of Light.

2 And the stones, shot through with gold, mounted ever higher, and the building rose up to meet the sky.

3 But, midway in the raising of the temple, it chanced that those who builded it laid down their tools.

4 But it was not as it was in mine own world when the people of the earth sought to storm heaven and the Lord confounded their language, that they might not understand one another's speech.

5 Rather was it that money, which talks everywhere with one tongue, and all understand it, was silent; there lacked gold wherewith to pay the builders when they should finish.

6 Then the priests of Iluh said, Let there be wagering, and

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giving of prizes by lot, whereof the Holy House of Iluh will take a share.

7 And the people flocked, and the coffers filled to overflowing.

8 And the builders took up their tools and began again to build, and soon topped off the temple.

9 And there was great rejoicing in the temple and in the streets about the temple.

10 But it was not the temple of Iluh the god of Light.

11 The people had so won themselves over to kneeling to Nuzsa the god of Chance, and praying to Nuzsa the god of Chance, that the temple became the gaudy sanctuary of Nuzsa the god of Chance.

12 I cursed them in my heart.

13 And, behold, there sounded thunder as of the roll of a lot of mighty dice.

14 For, lo, the builders had secretly hollowed out the stones to take of the gold that shot through the stones, to have, themselves, wherewith to wager, and the tower toppled and fell down dust.

Chapter 4

1 And we came to Adhara IV, and we saw a holy man, purple with dust of the road, and he was setting up an altar of his goddess in a wayside shelter near a town.

2 And when he had done, he set out for the town, and it was at the hour of the evening devotions, and, as he passed by, men and women grudged to look up from scanning the scroll and answer his greeting, though some nodded with stiffnecked piety, and some in slumber, but he made signs of blessing as he went, and stopped not.

3 And he came to the dwelling of a young widow and fair, and he told her he came to borrow a cloth for the altar.

4 The woman had but one good cloth to give, and that was unclean, for the woman had used it to dust the scroll when she saw the holy man coming.

5 But the holy man looked not to see if it was clean or unclean, but took it.

6 And he thanked her and blessed her.

7 And he went on, and came to the dwelling of a young maid and fair, and asked to borrow a cloth for the altar.

8 And she gave him one, and it was without spot. And he took it.

9 And he thanked her and blessed her.

10 And he went on, and came to the dwelling of yet a third young woman and fair, and asked to borrow a cloth for the altar.

11 And she gave him a gaudy cloth, not seemly for an altar, but he took it.

12 And he thanked her and blessed her.

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13 Now word of these borrowings sped about the town, and many fretted because he had not stopped and asked of them. And the place grew full of eyeings and whisperings.

14 Now, the altar was a casting in the form of the goddess reclining, and he draped all three cloths, one atop the other, over her face, which had holes for eyes, and he lighted a fire within the image, and the eyes of the goddess glowed through the stuff of the cloths, and he prayed the goddess to watch over him.

15 And with the days, as he sought out cloths, ever of the young and fair, and draped them over the others, the eyes of the goddess dimmed, though he kept the fire burning bright.

16 Then came the townspeople unto him and upbraided him for seeking out not the pious, but only such as were light-minded, and they bade him beware the temptations of the flesh.

17 But when they had spoken he said, Yea, though I have failed, and though I fail now, I strive to be worthy of sainthood. And as there is no sainthood where there is no temptation to overcome, the sight of the goddess must grow feeble that she watch blindly, that her dread gaze stay me no longer, that the time of testing come.

18 There is no telling to what depths of sin I sink if I fail.

19 And he fell silent, looking sad, yet proud.

20 And he was perfect and upright in their eyes. And they bade the young and fair tempt him.

21 And they themselves gave over their evening devotions to tempt one another with all manner temptations.

23 For, they said, is it not a goodly thing to help one become a saint?

CHAPTER 5

1 And we visited Nashira V, and I smiled, though it troubled me, to see a people forging chains for their idols, lest their idols tire of the pinpricking of multitudes of petitionings, and run off.

2 Then I saw this was in mockery, for the idols, had they been living, and without chains, could not have run off. For this people hewed all arms and all legs from the graven images of their gods (one by one till all were gone, then they made them a new image), to punish them for failing to answer the petitionings.

3 And I saw this was in further mockery, for this people held themselves as greater than their gods.

4 For that the images could not regenerate limbs as this people could; for when one of this people lost an arm or a leg, a new arm or a new leg would grow in its place.

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5 Sometimes an arm in place of a leg or a leg in place of an arm, but it grew.

6 And this people, indulging in scorn, held themselves to petty prayers; and even these their gods could not answer; the smaller the petition the harder it was for the gods to answer.

7 For it is easier to pass a miracle than to grant a small prayer; to turn back the foaming tide is easier than to choose out and pick up one grain of sand from out of the path of the foaming tide.

8 And I saw how petitioning for petty ends, though it be the greatest of challenges, diminishes the petitioner's god to a petty god.

9 And I reflected, and I pitied this people more than I pitied their gods.

10 And I spake of this to the Students and said, What this people need is a great miracle, to restore great wonder.

11. Whereupon the Students eyed one another, and smiled their gaudy smile, and began to mix Biochemical Powders.

12 And they scattered them broadcast over the land, and did this people great mischief.

13 For, thenceforward, when a person lost an arm or a leg (and there were many such, for this people had grown exceeding careless), it was not simply as before. Now the lost arm or the lost leg grew also a new person.

14 And when wonder at the new offspring turned to alarm at the growing numbers, the people so busied themselves making and administering laws of accident control (and none more busy in this than many among the new-grown persons), and providing for the multitudes of new mouths to feed that they forgot their gods.

15 And their gods slumbered, resting easy in rusting chains, and peradventure they sleep yet.

CHAPTER 6

1 On Galatea I we saw a people bowing down to a machine, reverencing this their god Molurg, forgetting that they themselves had fashioned it.

2 For Molurg answered all their needs.

3 And the people slothed into apathy, so that they remembered not that they had fashioned Molurg to answer questions.

4 But one day a child put into the mailing slot a writing to her mother in Heaven.

5 And Molurg sent it back to the child, saying, Returned for better address.

6 Now the child thought, and put into the question slot a question, What place is better than Heaven?

7 And Molurg, scrupling to say that which would shatter the simple faith of the child, answered, saying, Molurg does not make value judgments.

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8 And the child questioned again, asking, But where is Heaven?

9 And Molurg hesitated, then answered, saying, The coordinates of the construct Heaven are indeterminate.

10 And the child questioned again, asking, Is there a Heaven?

11 And Molurg wavered, grew gaudy with winking lights, and trembled, until I thought he would perish. But Molurg answered at last, saying, Come unto me, and I will show you.

12 And the child went out from her home, and made her way unto the great building that housed Molurg, and went in, and came not out again.

13 And I saw that a god needs a people more than a people need a god.

Chapter 7

1 We lighted upon Alkes V and tarried there. And by a temple ran a brook wherein the wicked, repenting them of their wickedness, might come to wash away their sins; but few came, because the virtuous stood by and mocked, for the virtuous were old in virtue and their knees horny with kneelings, whereas these had been old in sin.

2 Now the high priest saw this, and gave out that their god granted as much grace to those who newly washed away their sins as to those who had never sinned.

3 And the wicked came and washed away their sins, and walked proudly in their glistening virtue.

4 And those old in virtue took this ill, and spake loudly, dispraising the high priest.

5 And they began to sin, saying, Better were it that we sinned now and received absolution at the end; then should we profit more. For what shall it profit us, if we shall gain grace, if we have not first lost our soul?

6 Now whether it was that the high priest knew he had followed the way of wisdom, yet feared to let the people believe him foolish,

7 Or whether it was that the high priest saw that those long habited in virtue knew not how to sin and would work harm to themselves and to others in striving to sin,

8 Whether it was either of these things or not, the high priest said, Hold.

9 And he dammed the brook and made it to flow into a pool, so that when the wicked washed in the brook their sins would collect in the pool; and he bade the virtuous purge them of their virtue in the pool, in the sin-polluted waters of the pool, saying, You will profit manifold, for when you step forth from the pool you will have the sins of many to wash away in the brook.

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10 And they lusted after the unlustral waters, and they spake loudly, praising him now for what they dispraised him before.

Chapter 8

1 Then we touched at Alphard I, where the people showed no sign of worshiping, neither in their talk with one another did they utter a holy name.

2 Yet ever they kept their eyes busy with dartings, as though things unseen were all around; the which seemed to evidence awareness of a Presence, and gave me to hope for them.

3 But then I saw that when, as now and again happened despite the dizzying busyness of their eyes, one of this people met with an accident and sustained a hurt, such a one did not cry out in anguish and take the name of some god in vain; the which caused me to doubt.

4 Still I thought, Surely they silently call on some god to give them strength to bear their hurt in silence.

5 But after a space I grasped the state of things (and to hear truth is a harder thing than to speak it), and I gazed upon this people aghast.

6 For this people did not feel pain of the flesh; and it unsouled them in mine eyes, for solely by permeating the flesh has the soul being.

7 And the Students marveled that this people had endured without pain, saying, Pain is a Survival Mechanism.

8 Yet this people had endured to become a great people, and the most of them lived to ripen. And this was by reason of busying their eyes with dartings, against something fall from overhead or give from underfoot, lest some evil chance spill their blood or burn their flesh or break their bones, and they not know it until they lay hurt even unto dying.

9 And my heart moved against them for that they did show no sign of worshiping; and I prayed they should, that they be false to the True God or, even as Jezebel, true to a false god, that I might pour out my wrath.

10 Yet I could find no great sin among them. And I asked myself in wonder, Is it that they do not sin because they cannot, having no soul? Or is it that they be too busy?

11 But then I saw they paused at whiles for courting, so that the race might go on, and they painted their bodies gaudy hues and stopped all traffic. And at such a time I beheld a moment of sin.

12 A lover, striking out at his rival, struck his beloved instead, and she died without crying out, with her eyes upon his and his upon hers.

13 And I saw that the pain of

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loss being the greatest pain there needs none other.

CHAPTER 9

1 And many were the worlds we visited and many were the wonders we viewed.

2 I remember a people whose priests in their zeal had elaborated rituals and lengthened sermons and multiplied holy days till little time remained to the people to scratch the earth for their daily bread.

3 And I remember a people who had a heaven on earth, nothing wanting; and the heaven they longed for was a place where few wishes found fulfillment.

4 And I remember a people who prayed their god forsake them, they finding it burdensome always to do good in the sight of their god.

5 But now I felt a whirling of the soul to return to mine own place, the Land of Promise.

6 And the Students heard me sigh, and saw me grieve, and they sought to know why. So I spake of my longing, that it ravened my heart.

7 Then they writhed their tails in unease, and one said, We are able to carry you home to your own place, but we cannot carry you home to your own time. And the other related how that it was a problem of Co-ordinates and Vectors, and began to make a reckoning of years, but fell silent.

8 I bent my head and was still. Then a small voice that was mine own said, So be it.

9 And the chariot swung low over earth. And they set me down in green pastures. And I said, Go, and prosper. And they departed.

10 And a barking dog gave me greeting. And, lo! I saw mine own folk flock from all about.

***Through Time And Space With Ferdinand Feghoot:* LXVIII**

When wed in 3000 A.D
Feghoot flouted tradition's decree
That a smoked salmon's-head
lie in each nuptial bed—
"For love laughs at lox myths," said he.

—GRENDEL BRIARTON (*with thanks again to Simon Kahn*)

(See Feghoot advertisement in "F&SF Marketplace," page 129.)

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Robert Lory is a 26-year old P.R. writer who lives in upstate New York on a street with the lovely name of Stella Ireland Road. This, his second SF (or F) story to be published, is the wry tale of Harry Spender and the Eternal Now*—a new twist on the moving finger theme which Omar never thought of.*

APPOINTMENT AT TEN O'CLOCK

by Robert Lory

SPENDER AWOKE SUDDENLY with the noises of street traffic honking and roaring through his brain. Daylight pierced his shut eyelids. He closed them tighter, submerging his mind in darkness. letting it communicate—letting it tell him where he was.

His fingers and toes told him he was laying on something soft and springy. His sweating shoulders said they were naked, and the small of his back and his legs reported that they were covered by a single sheet. He had begun to smile, when he had an unsettling thought:

They cover people with a single sheet in a morgue.

At least, Spender had seen movies where a single sheet covered the corpses. But he was on his stomach; in the movies the dead were always on their backs. And the light:—he opened his eyes a fraction—morgues are dark. And the softness under him certainly was no slab, whatever it is those slabs are made of. He opened his eyes wide and exhaled in relief. He was in bed.

He sat up and shook his head. He had been in bed. He hadn't been . . . well, wherever he dreamed he had been. He tried to recall, but the dream had gone. It was too late. *Late.*

He realized at once that there was too much light coming through his apartment window. The clock confirmed his suspicion that something was wrong. Nine: fifty, it said. He snorted as a picture of Medwin came into his mind. Mousy Medwin, who would stare over his thick glasses, tap his foot, look down at his watch and,

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in his squeaky voice, say something clever like, "And what time zone are accountants observing this morning, *Mr.* Spender?"

Time zone, yet. Real original stuff, that Medwin. Nine:fifty. He felt his face. At least, he wouldn't have to shave. He'd done that last night, before going to see Laura.

Laura. Spender smiled and sank back on the bed.

Laura with the lips he'd first tasted last night. Laura with the endless chain of martinis, telling him over and over again that she wanted him, needed him. Laura in the light blue negligee, and later her body of ivory fur on the blue bedspread. Laura with the crookedest nose in the world. Well, you can't have everything. Despite the nose, he'd had his eye on her for a long time, watching her as she pranced around the office, as she took dictation from Medwin.

Medwin. And Laura. Medwin and Laura. Now, that would be a *real* couple. He laughed out loud, then his eyes lit on the clock again.

Pants on, socks on, shirt and . . . blasted necktie—thirty-one years old and still can't tie a four-in-hand. A quick swipe of the toothbrush and downstairs to the noisy outdoors.

He reached the outside steps when he saw the bus pull away from the corner. "Hey!" he yelled, and his feet began to move. Maybe he could catch the bus at the next block.

He hurried through the sidewalk traffic, sidestepping, shoving and elbowing ("Sorry, lady.") his way closer to the end of the block where three men and a girl were climbing on the bus. He might make it yet, he thought.

And then he saw the little man in the green derby hat coming straight toward him.

Something told Spender that the little man wasn't going to give way. The man was somehow familiar, and the green hat too, but Spender had no time to dwell on these thoughts. Instead, he was thinking about how he'd spin the little guy on his tail if he stayed in his way. He chuckled inside. Maybe he could even knock the green hat into the street.

Spender swung to his left, but the little man moved directly into his path. To the right! The little man was there also. And when the little man stopped, Spender stopped too, wondering why.

The little man tipped his hat cordially. "Harry Spender?"

"Er, yes. I—"

Spender had no chance to finish whatever it was he was going to say. For, in the next few fractions of a second, hands of superhuman strength clamped down on his shoulders and pitched him into the street. There were sounds of a woman screaming and brakes screeching. There was the sight of an oncoming car and the feeling of being crushed . . .

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Spender awoke suddenly. Daylight pierced his shut eyelids. He closed them tighter. He heard what might have been the sounds of traffic outside. It reminded him of . . . what? His body told him he was in bed, but the feel of the sheet on his back suggested something else.

They cover people with a single sheet in a morgue, he thought.

But the light! He opened his eyes a crack. Morgues don't have light. And there was softness that certainly was no slab.

He breathed a sigh of relief. Bed. Then it must have been a dream. He had just imagined that he . . . what *was* it he had imagined? A dream, something about a green hat? He couldn't recall in time. *Time.*

He became aware of the rays of sun coming through his window. Too much light for this time of—nine:fifty, the clock said.

Nine:fifty. He thought of Medwin the Mouse and laughed. He felt his face. No need to shave, at least. He'd done that last night before . . . Laura.

Of the blue negligee. On the blue spread. Her ridiculous nose at the office. Office.

He dressed hurriedly and ran down the stairs. He had just stepped outside when the bus pulled away.

"Hey!"

He ran, pushed, elbowed and sidestepped. At the next corner, people were getting on the bus. He might have time to make it. . . .

Then he spotted a little man in a green hat.

Spender knew, somehow, that the little man wasn't going to let him by. The man's eyes focussed on Spender as he came closer. And when the man stopped, Spender did also. There was something awfully familiar about this whole —

"Harry Spender?"

"Er, yes. I—" Hands grasped Spender. He was falling. A woman screamed, brakes screeched. There was a car coming. And a crushing weight.

He woke suddenly with the light of day piercing his eyelids and street sounds in his ear.

He was in bed, he discovered. But he hadn't been a moment ago. Then, he'd been . . . blast it, he'd been . . . There had been sounds, he could still hear them echoing in his brain. They were dimming. He couldn't catch them in time.

Time.

Clock. Nine:fifty. Late!

Shave. No need—last night.

Laura of the blue, Laura at . . . *work!*

Dressing, running, "Hey!"

The sound of his own voice caused a snap somewhere inside his head. It was a very minor snap, but it gave Spender the knowledge that he was doing things as he'd done them before. He ran after the

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bus, knowing he wasn't going to make it, knowing that any moment he'd see . . .

The little man in the green hat was coming toward him. And Spender knew why he was coming.

"Harry—"

"Not this time," Spender growled and, grabbing the man's lapels, slammed him against a building.

"Please—don't interfere," the little man said, flushing. "You don't understand."

"Maybe not," Spender said through his teeth, "but nobody's pushing me in front of a car if I can help it."

"A truck," the little man corrected.

"Truck?"

"Truck, Mr. Spender. There, it hits you from behind." The little man pointed to a truck in the street. Spender turned and saw a strange scene. The truck wasn't moving. Nothing was moving. Cars, pedestrians, dogs on leashes —everything except himself and the green-hatted man looked as if they had been—

"Frozen in mid-motion." The man smiled. "We had to stop the time-flow, of course. After all, if you're to die at ten o'clock sharp, ten sharp it has to be."

"Die?" Spender's hold on the man's lapels relaxed.

"Why, yes. You're dead now, in a manner of speaking. But I forget —you don't know about that."

"Dead. *Me?"* Spender released the little man and looked at the frozen forms around him. "Then . . . this is what it's like . . . afterwards?"

"Dear me, no. Not at all. Surely you have ideas about the Realm of the Afterlife—immortality, eternity and all that sort of thing?" Spender nodded. "Well, for the most part, your ideas are quite correct." The man sighed. "Ah yes, eternity . . .

"Only one thing wrong with eternity, Mr. Spender. It's eternal. The everlasting Now. As your scientists might put it, it's one space-time."

"And something's wrong with that," Spender said.

"Indeed yes—simply because an area of space can contain only one thing at one time. Therefore, a segment of space-time—no matter how large—can eventually get filled up." The little man looked frankly at Spender. "And that, sir, is exactly what's happened. The After-Realm is crowded."

Spender paced around two frozen women. "Crowded? But how could that be? I mean, didn't anyone . . . someone provide any advance planning?"

The little man supressed a giggle. "Well, there were a few attempts at urban renewal, but your population explosion has also hit us, quite hard. To pun one of the sacred writers, there is no room at the In."

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Spender began to laugh, and then realized that being told you are dead is not very funny. "What's this got to do with me?"

"Everything. Since we were running out of space in the everlasting future, it was decided to place a few test cases in space-time points in the past, where there could be no crowding problem. Sort of a revolving cycle—you are where you are and that's that."

Spender pondered this. "My 'cycle', I take it, starts every morning when I awake up—at nine: fifty. Then I live for ten minutes and die, is that it?"

"Precisely."

"And every morning—or this one morning over and over—I have to get up *knowing I'm going to get killed?*"

The green-hatted man laid a hand on Spender's shoulder. "I know the idea isn't pleasant. In fact, it's theoretically impossible that you should be able to have that knowledge. If you're actually re-living the moments as they really happened, how can you *know* what's ahead of you?"

Spender sat on the curb. "Well, I do know what's ahead, and I don't like it."

The little man shook his head. "I'm sorry to hear that, for my own sake as well as yours. You see, this cycle business was my idea in the first place. If it doesn't work out, my advancement may be blocked. And your not liking it could mess up everything, because your record of living is pretty clean. If you were one of the bad ones, it wouldn't matter if you didn't like it—kind of a punishment, you know."

He sat down beside Spender, and immediately jumped up again. "Suppose we set you further back? Say, for instance, you die now and wake up the moment you are born. Then . . ." He slumped back to the curb. "No—then it would be just a matter of a few years before you recalled everything again."

"No way out, huh?" Spender was beginning to feel sorry for the green-hatted man.

"If only," the little man said, "if only we could get you to *like* the cycle, even while knowing you'd have to die at a time you knew was coming . . ." His face screwed up in concentration.

Like the cycle, Spender thought. How could that be possible? And then he thought how.

The little man beamed when he heard Spender's proposal. "Why, yes. I'm certain it could be arranged," he said. "And that would make you happy?"

Spender pointed to the truck and laughed. At ten sharp, a woman screamed and brakes screeched.

He woke slowly. The light was dim. His body told him he was in a sitting position. Good. He wig-

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gled his toes and discovered that his shoes were on. Good, good. He opened his eyes wide. Old Green Hat had done it.

"*Well,* I thought for a moment the martinis had put my handsome man under," Laura said. Ivory Laura. Laura in blue.

She crossed over to his chair and planted a kiss on his forehead. "Maybe we'd better take away your glass. There's work to be done in the morning, you know."

As he bent down to unlace his shoes, Spender told her not to worry about tomorrow morning. He had only one appointment, and that was at ten o'clock.

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